Vol 5 No 12

December $3.50*

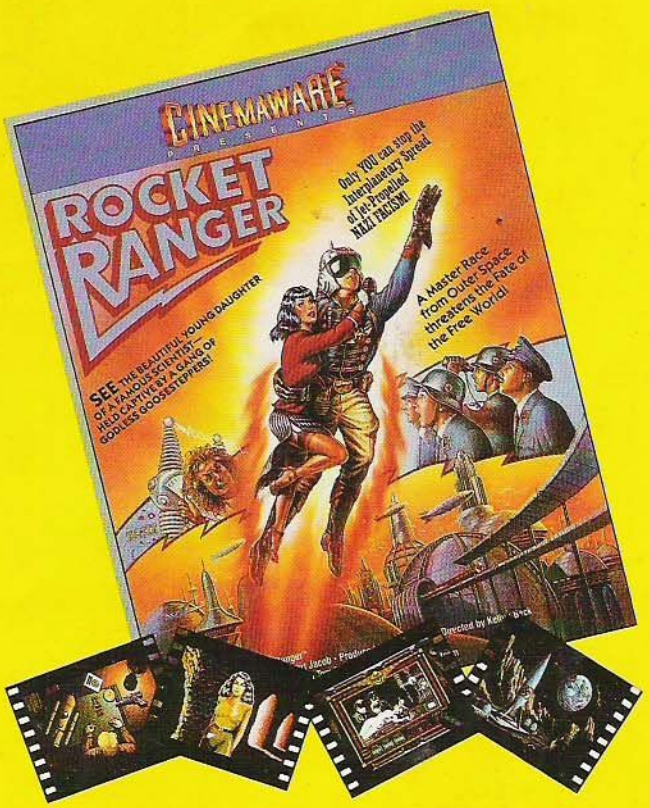
The Australian COMMODORE and AMIGA REVIEW

Amiga

- Recent Fish Disks
- Workbench 1.3
- Amiga Basic
- Publisher Plus
- C Programming

C64/128

- Choosing a cartridge
- Heart Lab
- Geofile
- Superbase
- Machine Code



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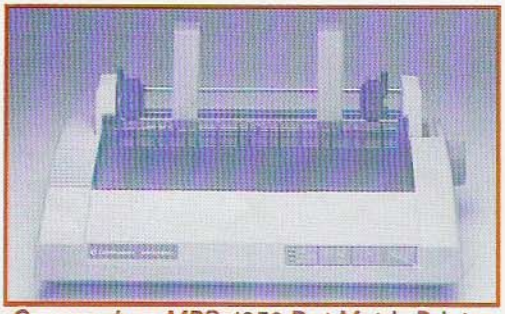

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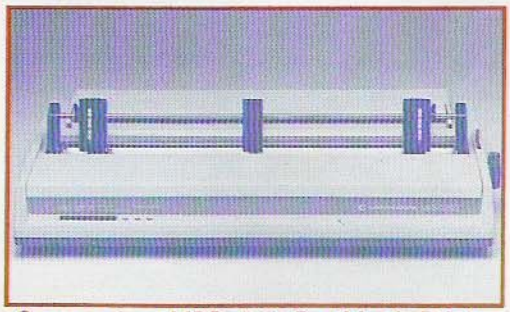

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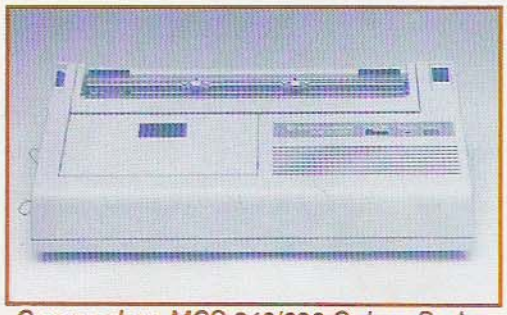

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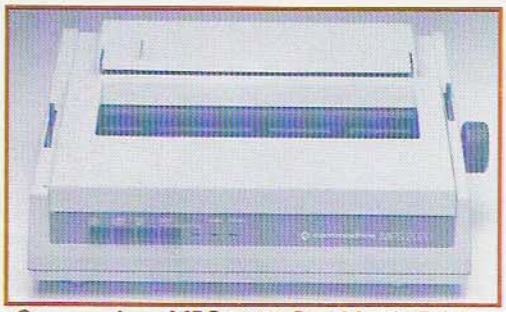

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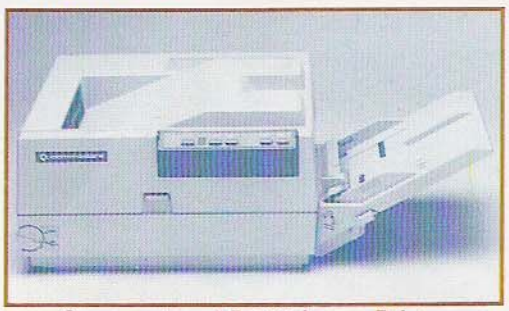

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The Australian COMMODORE and Amiga Review

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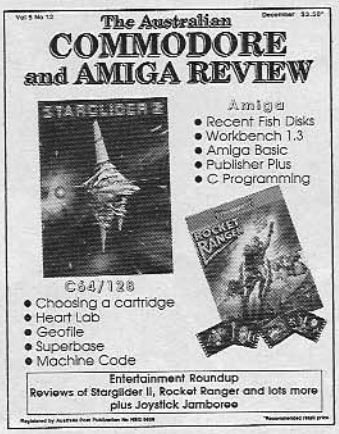

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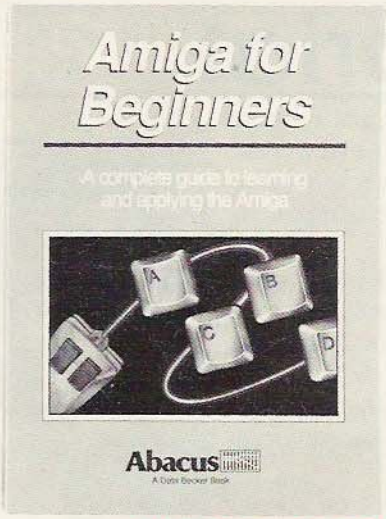
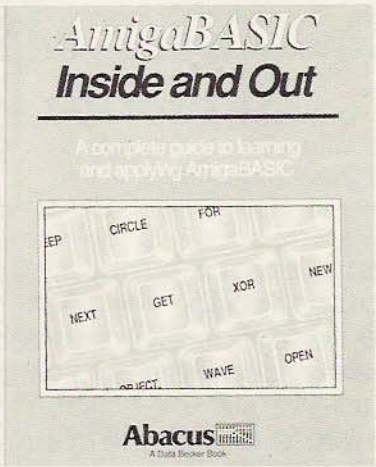


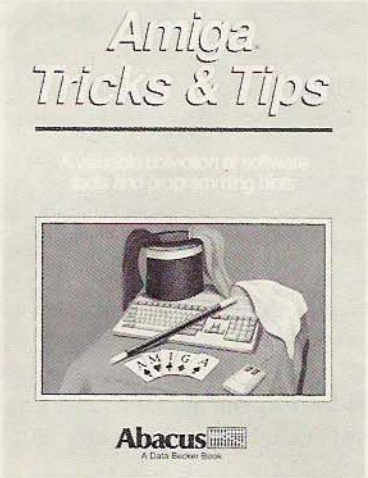
AMIGA FOR BEGINNERS

The Amiga is a user-friendly computer, yet so many aspects of it are confusing to the first time computer user. AMIGA FOR BEGINNERS helps you to learn the essentials of your computer quickly and easily. It has an easy to follow style, and uses a "hands-on" approach to familiarise the user with the actual operation. The topics that it covers include; INTUITION (the graphics user interface), introduction to AmigaBASIC, even the "mysterious" CLI (Command Line Interpreter). The glossary, "First Aid" appendix, icon appendix and technical appendix are invaluable for the first time user.



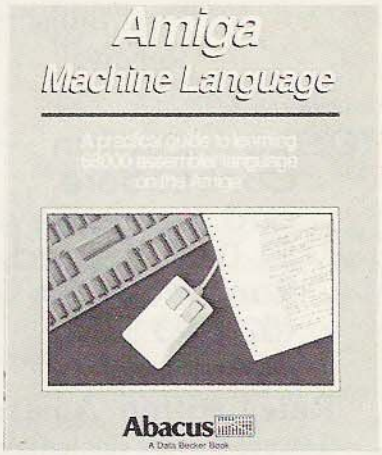
AMIGA BASIC INSIDE AND OUT

This book is more than just a tutorial. It's the first step in becoming an AmigaBASIC expert. Its approach is "hands-on", and it explains AmigaBASIC in a clear and easy to follow style. AMIGA BASIC INSIDE AND OUT is loaded with real working program listings such as an IFF-compatible drawing program, video titling for high quality graphics objects and many, many more. Other topics covered include; Graphic objects and colour control, sequential and random files, file handling and program structure. AMIGA BASIC INSIDE AND OUT includes a complete reference section (including glossary), AmigaBASIC quick reference guide and error message descriptions.



AMIGA TRICKS AND TIPS

The AMIGA is an impressive computer, but so many of its most powerful features are "locked" inside the machine. TRICKS AND TIPS is for all Amiga users who wish to use the full power of their machine. Amongst the many topics it covers are; CLI (in full detail), gadgets, windows (from BASIC), HAM and EXTRA HALF BRIGHT modes from BASIC, 3-D graphics, graphics fades and much, much more. It also covers disk drive operations, disk commands, rubberbanding, machine language calls, icons and error trapping. AMIGA TRICKS AND TIPS allows you to unlock the true power of your Amiga.



AMIGA MACHINE LANGUAGE

When you feel you need a little more power and flexibility in programming your Amiga, you're ready for machine language. AMIGA MACHINE LANGUAGE is a complete introduction to programming in the Amiga's "native tongue". It is written in an easy to follow style, and uses a "hands-on" approach. It gently guides first time MLX programmers through all facets; file handling, memory addressing, screen handling, graphic manipulation and much, much more. Brilliant on its own, when used in conjunction with AMIGA ASSEMPRO, this book is all you will need to become a genius in the world of machine language programming.

Available from Grace Bros, Myer, Microcomputer Spot, Computerscope, Harvey Norman and from leading computer retailers around Australia.

FOR THE NEAREST RETAILER IN YOUR STATE CONTACT:

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Editorial

Another summer, and a time of festivity, heralds in the New Year. Whilst traditionally a time of relaxation, it's also a time to take more than the usual care.

This year we have been warned to limit time spent under the sun's harmful rays. Of course, one should also take the usual holiday care when travelling on country roads. We wouldn't like to lose any readers now, would we?

If you're planning on staying home to keep out of the sun, or because the computer still needs to be paid off, this issue has lots of good reading. Kick back in your deckchair and have a read. Worse still, make your way back into the cool shade of the bedroom or study and check out some of the latest game releases.

For real hard core hackers, there's even some programs to type in. As for me, I'll be working on the January issue. Editors never get a good holiday! Perhaps early next year.

Now to business. It has been brought to my attention that there are still unscrupulous retailers out there who are blatantly selling pirated software and hardware. Small fry copying can be turned a blind eye to. Mass duplication for distribution to user groups is borderline. But, piracy for profit is well and truly black market.

If you're purchasing from a store and suspect the operator is involved in these practices, be warned. By purchasing his products you are actively participating in the act of receiving what amounts to stolen goods.

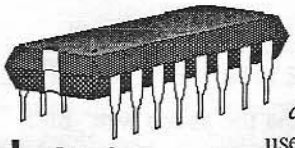
What's more, you're helping the guy stay around long enough to sell a few more people some pirated software. The business concerned is making money from something they didn't have to buy, and the original author receives no money. This is a blatant rip off. People like this really hurt the system.

I would hope responsible members of the computer world will help boycott such stores through word of mouth. If you know of any such operators, we would like to hear from you. Their names will be added to the list to be passed on to the relevant authorities, and to companies against whom this low form of thievery is being carried out.

Andrew Farrell

Merry Christmas and Happy New Year to our readers.

RAM Rumbles



Questor Clinches More Big Names

Imagineering's entertainment division, Questor, has secured a number of new major publishers of software. Readysoft, from Canada, will be distributing *Dragon's Lair* through Questor, a game tagged as the Amiga hit of 1988. We are yet to see this program. Other titles on the way from the same crowd include *Rock Challenge*, *Scary Mutant*, *Space Aliens from Mars* and *Cosmic Bunker*.

Another big boy signed up by the lads at Questor is Elite one of the largest and best known companies of the U.K. Titles they have released in past days include *Space Harrier* and *Paper Boy*. Compilations of their previous hits will be on sale at this time.

Access, the makers of *Leaderboard Golf*, also continue to use Questor's channels of distribution. Their latest arrival is *World Class Leaderboard* for the Amiga. Check out Phil Campbells review in this issue.

Star NX24-10

Star Micronics has released a new superior 24-pin printer which appears to be very high quality and extremely functional. Eric Holroyd is having a close examination of this unit in our January issue. However, to whet your appetite the printer boasts an extraordinary 360 dots per inch density, four resident fonts with three additional fonts available via an optional font card. Letter quality printing runs at 57 cps while draft mode prints at a reasonably fast 170 cps. Major functions are selected using the pressure sensitive controls on the top of the printer making for easy operation. For further details contact your local dealer or Computermate on (02) 457 8118.

Star Cursor Professional Joystick

If you're after a rock solid microswitched joystick you can't go past this latest Australian made product. After playing all our favourite games with it, and throwing it against a brick wall several times, the staff here at *Commodore Review* have given it their official stamp of approval. This means that the famous Wico now slips into second position. For a full comparison with other leading brands check out our joystick comparision in this issue.

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c64ers . . .

Expert Cartridge Distribution

Micro Accessories of South Australia inform us that contrary to our original review of the Expert Cartridge 3.2, they are now the Australian distributors of this product. The Expert Cartridge works along with a disk of special utilities. Any one of the available programs may be loaded into the Expert's memory and then used as if it was a cartridge. The Datasette Doctor allowing head alignment at various tape speeds is also now available through Micro Accessories for $34.50 and the Disk Doctor for $59.00.

For further information and the name of a store carrying these products near you call (08) 287 0191.

New All Time Highs

Here's a few facts and figures to boggle your mind. It's official, Commodore has sold 10 million 8-bit computers. Of that gynormous figure some eight million represent C64s and the remaining 2 million are C128s.

On the subject of the C128, the new 64K video RAM has provided some unexpected enhancements. Scren resolutions of up to 756 x 600 pixels are now possible. That figure is higher than the Amiga using overscan video. US magazine *Twin Cities 128* apparently explained the necessary secrets involved in a recent issue. We hope to track down this publication soon.

Cockroach Software

PO Box 1154
Southport 4215
Phone: (075) 91 6188

Cockroach Turbo Rom	$42.00 including postage
Cockroach Graphics Utility	$69.95 $including postage

Notepad

ProScript Gives PostScript

New Horizons Software has announced the release of *ProScript*. This program brings the power of the PostScript laser printing language to *ProWrite*.

As an added bonus included on the disk is a utility that will convert *Scribble!*, *Textcraft* and *TextPro* files into *ProWrite* files. This means that they can all then be used with *ProScript* and printed on a laser printer such as the Apple Laser Writer. For further information contact New Horizons Software on (512) 328 6650.

As yet we are not aware of an Australian distributor for this product, although we can thoroughly recommend that somebody consider carrying this program.

On the subject of laser printing, recently retired assistant editor Adam Rigby, now offers a service enabling Amiga owners to print files to an Apple LaserWriter. For details of this service contact him on (02) 906 1921.

Master 5A Drive

After a few glitches with earlier units, Comprepair, managed by Vince and Kerrie Morton, have officially released their fully functional Master-5A 5 1/4 inch disk drives for the Amiga.

Unlike similiar units, this version includes a microswitch detecting the removal and insertion of floppies. Therefore the DISKCHANGE command is no longer necessary. Recommended retail on this unit is $399.00.

Features include a 40/80 track selector allowing both Amiga format and MS DOS or C64 format disks to be read using various utility programs. The unit has its own external power supply, a full one year warranty and is guaranteed 100% compatible with the Amiga range.

For further information and a name of a local stockist call (03) 366 9404 or contact Micro Accessories, the Australian distributor on (08) 287 0191.

Aegis *Draw 2000*

Los Angeles, California - Aegis Development, Inc., today began shipping *Aegis Draw 2000* at the AMI EXPO show at the Westin Bonaventure Hotel. *Aegis Draw 2000* replaces *Aegis Draw Plus*, the best selling Amiga CAD program, as Aegis' high end design system for the Amiga family of computers. Suggested retail is 4279.95, and the minimum hardware configuration is 1 megabyte of RAM and two disk drives.

The package includes two version of *Draw 2000*:one for use with the standard Amiga 68000 processor, and another supporting the 68020/68881 coprocessor board (making the overall speed of the program increase by 20 to 50%, or more). It also includes the ability to display drawings in Workbench windows, thus increasing the number of drawings which can be displayed at one time, and the speed with which they are drawn. All reported bugs have also been corrected.

"*Aegis Draw 2000* is the latest example of our commitment to the Amiga market," said company president David Barrett. "*Draw 2000* is the result of our listening to our users and giving them the best possible product."

Aegis Draw and *Draw Plus* product owners will be notified of the upgrade to *Draw 2000* by mail, and all registered *Aegis Draw Plus* owners will be given the opportunity to receive a free *Draw 2000* manual as a replacement for their current two manual set. The upgrade fee is $20.00 inside the U.S., $30.00 for all other countries. This cost includes the price of shipping and handling. An upgrade from *Aegis Draw* will cost $150.00. Upgrades only available from Aegis Development, Inc.

For more information on upgrades, contact Aegis' Customer Support Department at (213) 392 9972 (voice) or (213) 392 6445 (fax).

Faster, Freddie, Faster

Motorola, the company that manufactures the Amiga's 68000 microprocessor, has released a new improved version of its big daddy version, the 68030 processor. This new version runs at a massive 33 MHz, making it the fastest 32 bit microcomputer chip on the market. 100 of these will cost you U.S. $697.00 each.

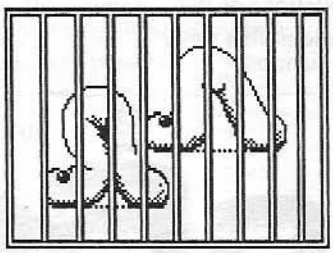
Hypercard for Amiga

Mac owners revel in this wonderful device which enables lateral thinkers to achieve amazing results. Rumour has it from the mill of the latest *INFO* magazine that not one but three independent groups are working hard on producing an ARexx-based version of this product by early next year.

Virus Penalties

In the U.S. six software trade groups have got together to urge the Government to introduce harsh penalties for the creators of computer viruses, including a ten year prison sentence. The campaign is being co-ordinated by the Software Development Council of North America.

The SDC take the issue of viruses very seriously. They



are fully aware that if a virus were to affect a hospital system, lives would be at risk. Such is the concern of many legal experts that they are donating their services freely to the cause.

They have been working to draw up some suggestions as to the penalties they feel should be imposed. These would include a $1,000 fine or three months imprisonment for the creation of a data destructive virus, a $10,000 fine plus one year in prison if it is shown that public health and safety is endangered by the creation of a virus. They want a maximum ten year prison sentence for a virus creator who endangers lives.

Notepad

However, even before the introduction of any new laws, a Texan named David Burleson faces the possibility of ten years in jail for infecting a brokerage company with a virus which destroyed 168,000 files. He was charged under a law in that state which punishes those who cause "harmful access to a computer."

Interprocess communication standard (IPC)

Pete Goodeve (who has some excellent programs on Megadisc - XICON for running batch files from Workbench icons, & others), has written with news of IPC, which he and some other top US programmers have been thrashing out on USENET (worldwide BBS), and it's coming along.

The basic idea is to set up a standard environment of communications between different programs in such a way that they can all act as "modules" in a large, customisable "meta-program", so that the output of one program can be fed directly into another, then another, etc. This maximizes the multi- tasking aspects of the Amiga, and really gets into a new computing level beyond the essentially "serial" things that have happened so far on micro- computers.

There are shades of the Unix concept of "piping" here, and William Hawes AREXX macro-programming language, in the sense of much deeper integration of the many tasks that the Amiga is capable of. Not only that, but George Vokalek's MULTI-FUNCTION BOARD addresses the same general area from a more hardware-oriented point of view. If you're interested in IPC, Pete Goodeve would like to hear from you I'm sure.

Quoting from his letter: " ... I did my bit at the last BADGE meeting by giving a slide show of the concepts. I made the slides as fancy and colorful as I could, capped it at the end by revealing that the whole show had been run by IPC! I had separate modules handling the display itself, user control (joystick, keyboard, or mouse), script managing, and conversion of IFF files to bitmaps. Because of the multi-process system, it was able to do fancy stuff like pre-reading the next slide or two, as well as keeping the last one shown available in case I wanted to back up...."

Lattice C Compiler update

The upgrade is available in Australia from Commodore directly. You should contact Commodore Technical Support, 67 Mars Road, Lane Cove, NSW 2066. They will be able to look after you. Alternatively, you can deal direct with Lattice Inc. in the States.

Multi-kickstarts for A500/2000 users

MULTI-START from Michigan Software allows you to switch between the standard version of the operating system on ROM and another version on EPROMS (Erasable Programmable ROMS). In other words you can have version 1.1, 1.2 and 1.3 eventually, all switchable from the keyboard. Costs US$129.95, from 43345 Grand River, Novi, MI 48050, Tel: (313) 3484477.

Help for transformer users

A lady called Suzanne Mitchell puts out a newsletter for users of *Transformer* software, which allows your Amiga to emulate an IBM via software only. It's US$10 per year from - Box 7969, Tyler, TX 85811 USA.

Attaching icons to icon-less files

This is no arcane mystery. An icon only exists for a file called, say, MYDOC because there is a file called MYDOC.info in the same directory. So if the file is a PROJECT (ie, the result of a program, such as a document from a Word Processor), all you have to do is find another project icon somewhere, and copy it to the directory containing your icon-less project. Then RENAME the imported ".info" file to MYDOC.info. When you next open the drawer containing MYDOC, it will

Update

Christmas is nearly here and I am sure you have been keeping an eye out for all the new products and special offers that are being made by people like Harvey Norman, Grace Bros and other retailers.

Some of you may have been lucky enough to get hold of the very limited number of games on disk and cassette that were being sold for $7.95 and $5.95 respectively, and I would think that many of you would also have taken advantage of the various offers on Pactronics Disk Boxes and Joysticks, and Head Cleaners for that matter. However, I must point out to Mr. X of Mosman that we do not guarantee our Head Cleaners to totally get rid of dandruff!

STAR TREK (for Commodore and Amiga), the REBEL UNIVERSE, has hit the streets, as have the following titles:

FLIPPIT: Have you ever played a game that had you coming back time and time again? FLIPPIT is just that sort of game. Gameplay is simple, but horrifyingly addictive. You must use the same kind of logic as that used to solve Rubik's Cube. There is one important thing about this game - IT'S AUSTRALIAN MADE and equal to the world's best.

There is also a great new spelling program for the youngsters from Sesame Street and it is called LETTER GO ROUND.

Finally, as a PACTRONICS PRESENT for the Yuletide Season:- Send in any four inserts from Pactronics games, with your name and address, and receive a free game by return.

We have much pleasure in announcing Helen Pryor, 15 Sherwin Place, Melba ACT has won first prize in our Update competition.

MXHNY

Notepad

have an icon and you'll be able to see it on WorkBench.

The same goes for other kinds of icons - TOOL (ie, program), DRAWER (ie, directory), DISK and TRASHCAN. The only thing to watch out for is making the icon do what you want it to do when you double-click it. Say you used ED the text editor to create a file MYDOC, and did what's recommended above by copying the icon file of a Notepad Note icon and renaming it MYDOC.info. Now that icon is set up to look for the program NOTEPAD in the SYS:UTILITIES drawer, whereas you want your file to be shown using PRINTEXT off *Megadisc*, which you've copied into the C directory of your disk, where all good commands should live.

What you have to do is this (this is only for PROJECT type icons):

- click once on your new MYDOC icon to "select" it
- select INFO from the PROJECT menu of your WorkBench
- up comes a screen describing your icon - click in the DEFAULT TOOL box, press R-AMIGA and X together to remove any entries there (which will be SYS:UTILITIES/NOTEPAD if you used a Notepad Note icon)
- now type in SYS:C/PRINTEXT (or just :c/printext if you simply want to refer to the C directory of the disk your icon is on) * click on SAVE in the bottom left corner of the screen, and the new info will be recorded in the icon file itself.

Now when you double-click on your new icon it will look for the PRINTEXT text-showing utility in the C directory to show your text file on screen. If you're interested in finding out more about icons, see the articles called USING ICONS on Megadisc 1 & 2.

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Australian newsletters and magazines

These are a few Oz newsletters that come our way, and they often include very useful information of all kinds - if you join the group concerned, you'll also be able to meet like-minded people and have questions answered, or join one of their SIGs (Special Interest Groups), for Video or programming or whatever. So join up, support your local group!

BAUG NEWSLETTER - edited by Peter Goed, recent Pres (succeeded by Viv Mundy). This is a pretty meaty one, and well presented in a foolscap, stapled format with a colour cover, and laser-printed to boot.

Some examples of the kind of info: A CLI approach to cataloguing Fish Disks by Chris Taylor; A Bug Fix for the Basic ILBM loader by Adam Wolter; Using PATH in startup-sequences by Paul Coward; Slimming down your Workbench by Bryan Fripp; a fine tutorial in Machine Language by Jakub Szajman; UEDIT upgrade by Glen McDiarmid; and some more. Membership to BAUG $25 per year to : The Secretary, BAUG, 5 Charles St, Bundamba, Ipswich QLD 4304.

WORKBENCH - from the Amiga Users Group (P O Box 48, Boronia, 3155, Vic), edited by Peter Jetson, continues to produce good info for users.

The latest issue covers, amongst other topics: A bit about C; a review of Faery Tale; book review of Amiga Assembly Language Programming; a tip for using ED; Midi and the Amiga in Australia; a review of Lattice C V4.01 compiler; review of SuperTex for Viatel; about raw: and con: windows in C, etc. Become a member for $20.

CURSOR - Edited by Ralph de Vries, the September edition contains, amongst local details: Review of Director by Robert Googe; Example Macros for MicroEmacs by M. Thomas (long!); about printing with 1.3 and Professional Page.

Membership CCUG (Q) Inc., is $25 ($10 joining fee) from The Secretary, P O Box 274, Springwood, QLD 4127. The month before there was a review of TRANSACTOR, which makes your Amiga reasonably IBM-compatible under software control; remote-sensing image processing software from CSIRO on the Amiga, marketed as A-IMAGE, for use with satellites; and a hack for stereo speakers for the Amiga; and some letters.

AMIGA MAG (of the Amiga Users Group of South Australia: Tel: (08) 494996) arrives with a number of good articles, a couple of which may appear familiar to a Megadisc user! Edited by Brian Astill with a good presentation.

☆ ☆ ☆ ☆ ☆

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Workbench 1.3

An overview by Tim Strachan

BY THE TIME this is printed, you should be able to buy the 1.3 System software package, including Kickstart 1.3, Workbench 1.3 and Extras 1.3. Only A1000 users will benefit from the Kickstart disk of course, and A500 and 2000 users will have to change their Kickstart ROMS through an authorised CommCare centre.

The benefits of doing this amount to being able to "auto-boot" off properly configured hard disks, meaning at the moment 2000s configured with the new hard disk controller. A further benefit is auto-booting from the "Recoverable Ram Disk" (RAD:).

So some A500 owners may well opt to carry on with their 1.2 ROMS and do the big upgrade when Kickstart 1.4 is released - said to be a significant upgrade. They're working on it now, but no dates have been whispered except 1989. The main changes are on the Workbench and Extras disks, so what are they?

Shell

To improve use of the CLI (Command Line Interface - ie, where you type commands in, rather than use icons to move the machine), this software allows you to use arrow keys to get back previously typed commands which you can then edit if you wish, then re-use. Certain features of the Shell can be edited by you, such as the size of the window which appears and the STACK (certain programs need more than the default 4000 stack to run them, eg, *Excellence!*). You can also create ALIASes for various DOS commands, and specific to a particular Shell, by editing them into a batch file called SHELL-STARTUP in the S: directory of your Workbench. For example, you could specify

ALIAS d12 "diskcopy df1: to df2:"

and in future simply type d12 to get that whole command. More savings on typing. There are a few other features but that's the gist of it.

Note that there have been various other shells available for quite a while, notably Bill Hawes' CONMAN, as well as Matt Dillon's CSH, amongst others. Definitely worth using.

Utilities

A number of utilities have been taken from the public domain and elsewhere and made into official Amiga utilities, or improved - NOFASTMEM toggles (turns off/on alternately) Fast Ram for those older programs which can't handle it; ICONX duplicates the capabilities of Pete Goodeve's XICON program which allows you to run Batch files from an icon - the "CopyPrefs" in the new PREFS drawer is a batch file which simply copies the Preferences settings (held in the "system-configuration" file in the devs: directory of any boot disk) from the current System disk (maybe hard disk or RAD:) to an original boot disk; FIXFONTS (new) updates .font files in the FONTS directory after you've added a new font or two; INITPRINTER initialises the printer using Preferences settings - it sends escape codes to the printer to make it read Preferences.

The UTILITIES drawer comes with five new programs: CLOCKPTR turns your pointer into a digital clock, with different readings in different parts of the screen; CMD lets you redirect what was going to your printer to a file on disk; INSTALLPRINTER is a convenient icon/batch file which lets you copy a particular printer driver from your Extras disk to your Workbench without any messing around; MORE is a utility which shows any text file from an icon or the CLI, and includes a number of extra features such as the ability to search a text file for a particular word or phrase, scroll up and down in various ways, access a text editor, and even use the PIPES capabilities now available; PRINTFILES and GRAPHICDUMP do what they suggest and have a number of added features.

Preferences

Now merits a drawer of its own, full of icons which allow you to go straight to a particular Preferences screen, ie, printer, pointer, serial. The big differences come in the way Graphics are handled, and this requires a full article of its own - to get all the details, read "Print.Manual" on Megadisc 8, or get Megadisc's upcoming AmigaDOS manual which goes into it all in exhaustive detail.

Suffice it to say that there are big changes in the quality of your graphic printouts to the various Preferences printers, and there are quite a few new ones included.

DOS commands

There are several new commands in the C directory of the new Workbench, and many of the existing commands have been improved in terms of speed and features (some incentive here due to the ARP push!). The ones which haven't been changed include: Break, Cd, Ed, Edit, Else, Endif, Failat, Fault, Lab, Makedir, Quit, Relabel, Rename, Sort, Stack, Wait, and Why. Full details of these should be found in "The AmigaDOS Manual" read with the new 1.3 Manual, or the DOS-on-Disk manual mentioned above.

Other stuff

Fonts - there are three new fonts on the Extras disk, called Courier, Helvetica and Times, and they can be used like the usual gem-like fonts on the Workbench.

These were supposed to be Postscript fonts but it's unclear whether they can be used as such from a program which does Postscript (which has its own special fonts anyway).

Handlers - the AUX-HANDLER lets you use a monitor attached to the serial port, mainly of interest to programmers debugging their programs.

- the PIPE-HANDLER copies a Unix facility in letting you use the output of one program as the input of another without pause. Lots of possibilities here in downloading, printing, etc.

- the SPEAK-HANDLER goes further than the SAY command in letting you have spoken output from all sorts of programs.

- SCRIPTS have been improved with a couple of utilities designed to extend the capabilities of Batch files.

The Extras disk

There are various tools available, as before, with an extra one called Palette which allows you to change the colours of your screen without entering Preferences. Also available are FED, a font editor; FREEMAP, for displaying usage of chip memory; ICONED & ICONMERGE for icon manipulation; KeyToy2000 for showing the 2000's keymap; PERFMON for a graphic monitoring of the performance of the system; and MEMACS, a function-laden programmer's editor.

All in all, a strong revision by Commodore, who should be congratulated for giving continued upgrades for their best machine. Now we can hang out for the 1.4 version!

Recent Fish disks

THE MOST RECENT Fish Disks, compiled by Fred Fish from the very beginning of the Amiga's history, arrived recently, and seem to be leaning a little more towards programming utilities. Below is a reduced listing of what's on them. If you want to find them, check out your local User Group or friendly dealer, or find them, along with hundreds of other Public Domain disks, through *Megadisc*. For a complete listing of previous Fish Disks, see our Amiga Annual 1989, on sale now.

FISH DISK #161

Friends Cute little screen hack with command-line options to keep your mouse pointer company when you step away. Includes source.

Getsprite A simple little program to convert Dpaint brushes into C-source. Binary only.

IncRev A handy little program that will automatically increment the revision number of a program every time it is recompiled. Binary only.

LGZ A Map generator/editor for the LGZ game. Good source example of intuition interfacing. Version 0.1.

Mackie A versatile cli/macro-key initiator based on POPCLI with a unique method of "screen-blanking". I won't say more, just try it! Version 1.1, includes source.

Nag A shareware appointment calendar with its own editor and a unique 'nagging' feature utilizing the Amiga's voice and audio devices. Version 1.6, binary only.

Perl Practical Extraction and Report Language, an interpreted language optimized for scanning arbitrary text files, extracting information, and printing reports based on that information.

VRTest Another anti-virus utility that allows visual inspection of ram starting a $7E7FE, ram cleaning, bootblock inspection and vector monitoring/reseting. Written entirely in assembly language. Version 3.2, binary only.

XBoot A very simple utility to convert a boot block into an executable file so you can use your favorite debugger (Wack, Dis, etc.) to study it. Includes source.

FISH DISK #160

Calls A little utility to help analyze the flow of a C-program by laying out the functions called in a hierarchical manner.

Check Utility for finding structural errors in C-source code. Many command-line options. Version 1.03, binary only.

Dis A 68000 disassembler, written in assembly, this is an update to the version on disk #128. Includes source.

DMouse A versatile screen & mouse blanker, auto window activator, mouse accelerator, popcli, pop window to front, push window to back, etc, widget. Version 1.09, includes source. Update to version on disk number 145.

DWIP "Daisy Wheel IFF Printer". A graphics printing utility that allows the printing of IFF pictures on a daisy wheel printer. Includes source.

M4 A UNIX M4 look-alike macro processor intended as a front end for Ratfor, Pascal, other languages that do not have a built-in macro processing capability.

MemoPad A shareware intuition-based memo reminder program. Nicely done. Update to version on disk #146, version 1.2, binary only.

NeuralNets A neural network example using the generalized back- propagation delta rule for learning, specifically applied to the tabula rasa Little Red Riding Hood instance.

FISH DISK #159

Free A little command to put in your c directory that returns memory status and number of tasks currently served by EXEC.

MidiTools A group of several different utility programs for those who run a Midi system. Binary only.

StarChart Nicely done intuition based program to display and identify about 600 stars, galaxies and nebulae visible in the Northern hemisphere. Version 1.2, includes source.

TaskControl Nicely done task-handling program allowing you to put to sleep, kill or change priorities of the all the currently loaded tasks. Also potentially GURU-producing, so be careful. Handy window sizer will reduce it almost to an icon to hang around until you want

to use it. Binary only.

TUC "The Ultimate Clock". Another window title clock/memory minder. This one is in 132 columns! Also gives the free memory on drives DF0, DF1 & DF2. Includes source.

FISH DISK #158

DiskX Nicely done Sector-based disk editor. Binary only MemBoardTest. Very nice intuition interface. Version 2.4, Includes source in Modula.

MSDOS To list files written in standard MS-Dos or Atari ST format. They can then be copied to Ram and rewritten to disk in Amiga-Dos format. Binary only.

PCBTool An early version of a shareware PC Board layout program. Lots of options including variable size pads and traces, grids, layers, zoom, and more. Does not support printer/ plotter dumps or libraries. V 2.6, binary only.

ScreenX A handy little background utility that provides a small clock/memory counter in its inactive mode and a versatile screen manipulator when called upon. Binary only, source from author, V 2.1.

TaskX A "real-time" task editor. List and set the priorities of all currently running tasks. Binary only, V 2.0.

VirusX Update to the version on disk 154, checks for a couple of additional new strains. Includes source, V 1.6.

YachtC3 Update to the Yachtc program on disk #10, contains some fixes and incorporates a simple sound process. Version 3, includes source.

FISH DISK #157

60or80 Small utility to toggle the 60/80 column text modes without having to go through preferences. Works from either CLI or Workbench. Incl source.

AmicForm Creates a phonebook containing only those areacodes and exchanges reachable through PC-Pursuit. V 1.3, Binary only.

AnimBalls A nifty little animation program that allows you to create a collection of balls in three-space and then interactively rotate them in real time using the mouse. Includes source.

BootBack Handy little utility to copy and save the boot block from a disk, then later restore it should the disk get stomped on by some ugly virus. Includes source.

ECPM A CP/M emulator for the Amiga. Emulates an 8080 along with H19 terminal emulation. Update from version on disk number 109. Includes source.

KeyFiler A BBS message file sorter that allows sorting by keyword. Includes a textreader, Soundex matching, and limited wildcard capabilities. Version 1.0, Binary only.

ScreenZap A little utility to clean away screens that are left by ill-behaving programs. It will kill every screen behind the WorkBench, noting how many it gets. The screens in front of WB are not affected. Includes source.

SetPrefs Allows you to build a whole library of preference settings and instantly switch back and forth between them. Affects all preference settings not just colors. Very useful for machines with multiple users or multiple external devices. Binary only.

Xicon Lets you use icons to call up scripts containing CLI commands. This is version 2.01, an update to the version on disk 102. Includes source.

FISH DISK #156

Blocks2 Amusing and colorful display of a moving trail of "blocks". Update to version on disk number 71, however this version also includes source.

Flex Flex is a replacement for the UNIX "lex" (lexical analyzer generator) program that is faster than lex, and freely redistributable. Includes source.

Go64 Another screen hack aimed at an earlier Commodore product (Not to be confused with Go-64! from Software Insight Systems). Includes source.

Grammars A group of lexical grammar files for Ada, C and Pascal for use in conjunction with the flex program on this disk and the bison program on disk #155

OOPS! Tired of the monochrome background color of your Workbench or CLI? Then try this colorful screen hack to brighten things up! Includes source.

FISH DISK #155

AsmExamples A couple of assembly code examples. Executables are not extremely useful but the code might be of considerable benefit to beginning assembly language programmers.

Bison A replacement for unix "yacc" command. This is from the GNU (GNU is Not Unix) effort. Updates to the version on disk number 136. Includes source.

NoSmoking Sample program showing the use of a recoverable alert while displaying a personal health message. Includes source.

Scenery A very nice assembly language random scenery generator. Generates very realistic looking landscapes. Includes intuition interface and lots of menu options. Version 1.0, binary only.

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Clicked on Games Clicked on Games Clicked on Games Entertainment Roundup

by Andrew Farrell

HELP, I'M DROWNING! A veritable onslaught of programs has enveloped this office. We're all knee-deep in program wrapping, disk jackets, and instructions manuals . . . not to mention joysticks. This has been the month to end all months as far as games go. We couldn't hope to review them all, so we reviewed the better ones. The rest will appear over the next two or three months. However, if you can't wait, here's a quick rundown on what arrived, and what our first impressions were - if we got a chance to look, that was.

C64 - New Releases

Inside Outing - The Edge/Ozi Soft (RRP $29.95C $39.95D) A 3D type action adventure with some interesting twists. You're a thief, and by the looks of it, you're in for some stealing. Lovely theme, eh?

Cybernoid II - Hewson/Ozi Soft (RRP $29.95C $39.95D) Multi-directional shoot-em up set in the future... aren't they all!

Psycho PIGS UXB - Jaleco/Ozi Soft (RRP $29.95C $39.95D) Welcome to the unexploded bomb class of '88. Graphics look a bit ho-humish, but the game play is supposedly pretty good.

Salamander - Imagine/Ozi Soft (RRP $29.95C $39.95D) Super fast action game. Review in January.

The Flintstones - Grandslam/Ozi Soft (RRP $29.95C $39.95D) A fun game based on these fab cartoon characters. I had a quick play - and it looked a lot of fun. You're Fred and to start you have to paint the house. All the wacky bedrock humour rolled into one neat game. Review in January.

Game PAKS - There's a few top value game packs floating around - I suggest you check them out. Most follow a particular theme, which is good to see. I could recommend the World Beaters collection which includes *Out Run*, *World Class Leader Board*, *720*, *Rolling Thunder* and *Gauntlet II*.

Welcome to the Rat Race - ECP (RRP $24.95C $34.95D) A local product written by Darryl Bartlett. The idea is to collect money, it's a sort of life simulator. Perhaps the author thinks that life is that simple, and perhaps for some it is, with a total of over $10,000 to collect over the 30 screens to explore. Joystick operated, full review in January.

Chain Reaction - ECP (RRP $24.95C $34.95D) Eliminate the alien robots who have over-run an atomic power station. Watch out for radiation and make good use of your jet propelled boots in this simple but fun game. Full review in January.

Typhoon - Imagine/OziSoft (RRP $29.95C $39.95D). Unique graphics, tight game play and plenty of action in this shoot'em up war game. Some unique ideas with animation too ... the clouds fly straight towards you - which must be seen to be understood or believed for that matter. Check it out.

Fox Fights Back - Image/OziSoft (RRP $29.95C $39.95D) Top marks for this game. It's original, entertaining, and just easy enough to get into, but too hard to get bored with. You're a fox, and you're on the hunt for food. Against you are the hounds, rock-throwing possums, bomb-dropping pigeons and a host of other nasties, employed I'm sure by the local farmers. This time, the fox is armed and dangerous. Apart from dodging your foes, you can also give a few of them something to think about. Check it out.

Football Fans will find there's now several good football (and by that I mean soccer, these are all English games) simulators. Some are more tactical than others. Andrew Baines will have a report on those soon.

Amiga

Volleyball Simulator - Time Warp/Ozisoft (RRP$49.95) Yet another sports freaks' game with a tactics editor. You are the trainer of your team, control how your players act either aggressively or defensively.

Cosmic Relief - Datasoft/Ozisoft (RRP $49.99) A cartoon like game of crazy capers. Good graphics and sound, fun to play. A bit tough to get the hang of moving this little guy at first. Levels and ladder type action on a scrolling landscape.

Siera Questa - Microdeal. Fancy box, but, contrary to Microdeal's usual style, it looks and plays a bit on the sour side. Could easily be a C64 game, even though the graphics are a bit too good. Critical analysis in January - don't buy it before then.

Out Run - Has been promised for months, and according to sources, should be here now! This game is hot. Don't miss it. (Also have a look at *After Burner*, also a fast action flight game with great graphics on the original Sega version.)

Bionic Commando - Now out on the Amiga as well as the C64. Levels and ladders over a four way scrolling landscape. Fun, but hectic. Worth a look.

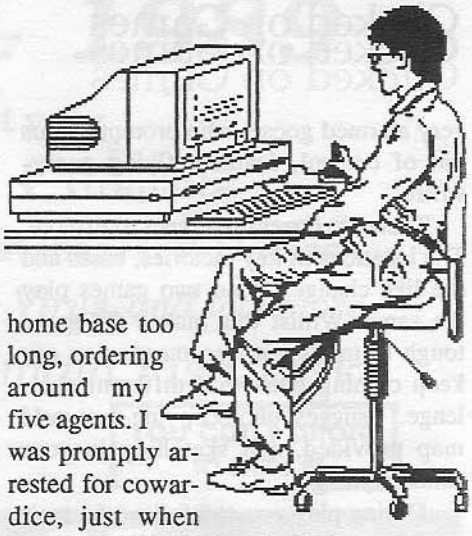
Until next month

That's just a quick look. Others we've reviewed in this issue, and still more were buried too deep to be mentioned. It's good to see that both the C64 and Amiga have been getting many new titles to choose from - that should give you plenty to do over the coming weeks.

ROCKET RANGER

AMIGA

by Andrew Farrell



Flash Gordon, Buck Rogers and Commando Cody were all heroes of the gone, but not forgotten, cinematic art form known as the Saturday matinee serial. Cinemaware's new game, *Rocket Ranger*, brings back the memories and pays tribute to these old time greats.

"The world is in your hands . . . and your hands are shaking", reads a typical line from this corny cartoon caper. Ray guns, Zombie Women, famous scientists and the Himmelwurfer Rocket Pack are the order of the day.

Here's the scenario. In an unexplained cosmic error, the Nazis won world war II. One hundred years into the future, and scientists upon discovering the mistake, manage to time travel advanced equipment back to the year 1940. It's up to you as *Rocket Ranger* to use these devices. Can you change history and thwart the Nazi attack?

At the heart of this ruthless regime is a new fuel called Lunarium, which, you guessed it, is mined on the moon. Success in your mission rests on your ability to use your supply wisely as you travel the world, strapped to your rocket pack, in search of the Nazi bases.

Using a secret decoder wheel, which is actually an anti-piracy device, you dial up the correct amount of Lunarium required to make each leg of your journey. Careful planning, and accurate expenditure of fuel, is the only way to ensure success.

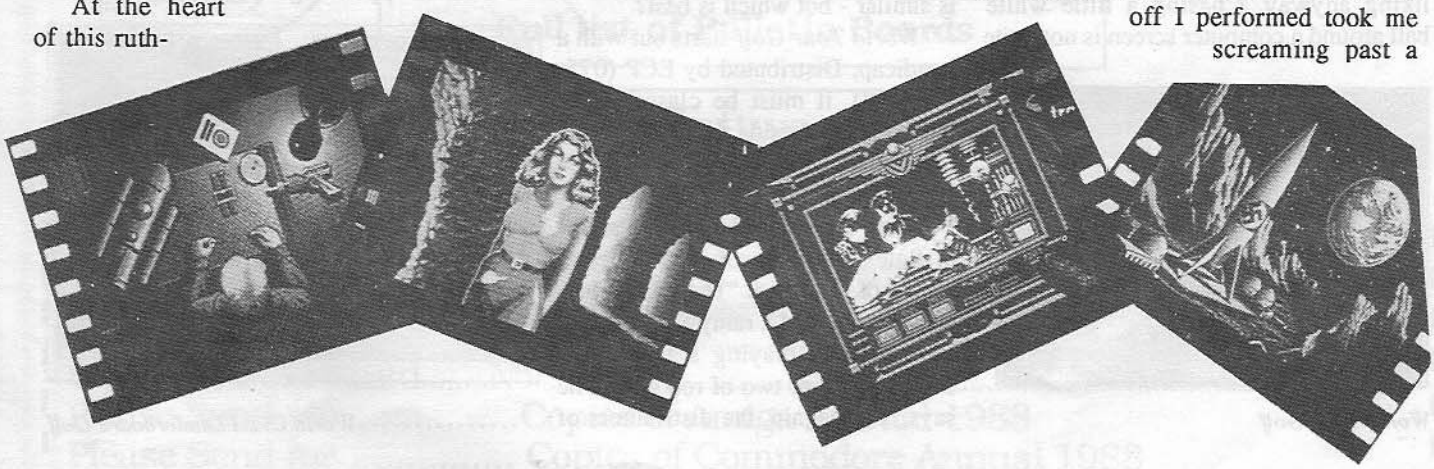
Helping on your mercy mission are five agents which may be placed at strategic locations, and given orders to infiltrate the enemy for information or organize resistance. Commands can only be issued from home base, in Fort Dix, New Jersey. There is where you must also assemble your own rocket to reach the moon. Parts are found in Nazi laboratories around the world.

I made the mistake of staying at home base too long, ordering around my five agents. I was promptly arrested for cowardice, just when my men were starting to discover where the Nazi campaign was heading.

In the usual Cinemaware style, game play is broken down into a variety of interactive animated scenes, just like a movie. Graphics and music help captivate the flavour of the earlier flicks, giving a good overall feel.

Once you're off the ground, you can expect to run into fighter planes, Zeppelins, and ground fire. After reaching your destination, you have to face a variety of foes. Most rocket bases are guarded by a single German soldier. He packs a mean punch, and as the game progresses, becomes increasingly difficult to match. Other installations, such as one I located in Brazil, are protected by a barrage of machine gun installations.

Attention to detail is finely demonstrated by the designers of *Rocket Ranger*. From the way your character wipes down his face after an aborted take-off, to the fully digitized sound effects. One take off I performed took me screaming past a



Clicked on Games

very alarmed goose, who promptly spun out of control, feathers flying everywhere.

There are dozens of scenes to explore. The locations of key factories, bases and the like change, so no two games play the same. Whilst this makes the game tough to master, it also means you can keep coming back to a different challenge. I suggest photocopying the world map provided, and sketching in your finds as you go.

During play you can follow the main story line, chasing the Zeppelin that kidnaps a scientist and his beautiful daughter from Washington. Or, you can try your own tactics. I tried sticking to the main theme, and soon caught up with the daughter in question. Her soothing digitised tones are a far cry from the Amiga's usual voice synthesis. Trying to convince the lovely lady and her father, using the multiple choice conversation box, of your good intentions to rescue them is not so easy.

Control is entirely by the joystick, which is a little clumsy in parts. Why the mouse was left idle remains a mystery. Each scene is loaded from disk using a special fast disk operating system. You can make a back up, but you cannot copy the software to hard disk. An enjoyable game to play or watch. Excellent presentation and animation.

Our review copy came from YPA, the Australian distributors. RRP $79.95. Available from most computer stores for the Commodore Amiga, IBM and soon for the Commodore 64 at $54.95.

Play hints

1. Always go to the WAR ROOM first. At least one agent will be flashing in Germany where there is almost always a bomb factory. Move him to another country before proceeding to the FUEL DEPOT. Transfer around 100 parts of Lunarium into your rocket pack.

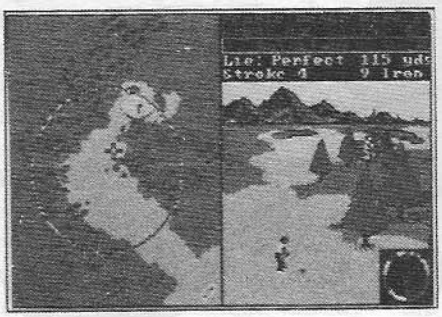
2. When chasing the Zeppelin, on the first screen, shoot all in bound missiles. On the second, avoid the ship, and only knock out low missiles. On the last, avoid the missiles totally. You must land a shot in the rear door to knock out the gunner. Once inside you can converse with the scientist and his daughter. The trick here is to convince the scientist, not his daughter, to trust you. Be sensible, honest, and avoid comical lines. - AF ■

Action Courses *for Lazy Golfers*

In Japan it's a game for the rich, and now, it's also a game for the lazy. Phil Campbell writes between holes as he looks at two of the current golfing offerings available.

I DO NOT OFTEN play on upper-crust gold courses. On my last visit to the salubrious Concord Golf Club, I made the unfortunate mistake of beating my host by one stroke. Naturally enough, I have not been invited back.

Computer gold is much more to my liking anyway. Chasing a little white ball around a computer screen is not quite as strenuous as the real thing, but *World Tour Golf* and *World Class Leader Board* both offer viable Saturday afternoon alternatives for the lazy golfer.



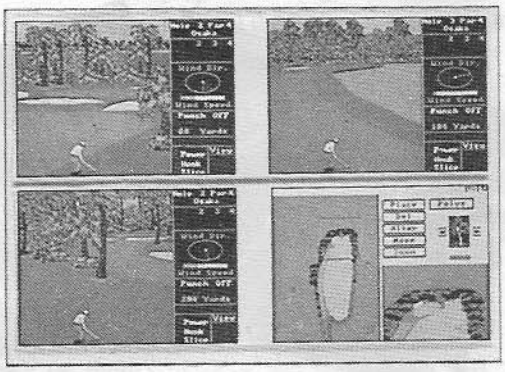
World Tour Golf

Both games are available in multiple machine formats. Both claim to be improved versions of earlier games. Pricing is similar - but which is best?

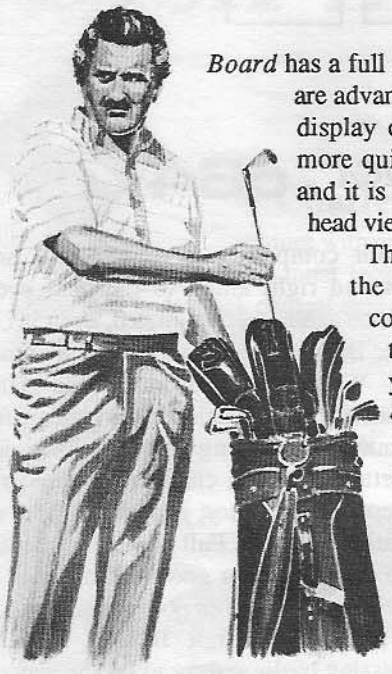
World Tour Golf starts out with a handicap. Distributed by ECP (075-963 488), it must be classed as a rank outsider beside the successor to *Leader Board*, one of the most popular games of all time.

Even so, Michael Lynch, National Sales Manager of ECP, speaks highly of the game. "There is no better way to spend a rainy Saturday afternoon than playing a few holes over a bottle or two of red wine," he says. Then again, the distributors of *World Class Leader Board* are enthusiastic too. Questor's Tim Allison claims that the game has kept some staff in the office until 10.30 p.m.

Let's play - first, a quick look at *World Tour Golf*. After the usual preliminaries, the main screen appears. The display is split neatly down the middle - on the left half is a map of the current hole, and on the right, a view from the player's perspective. Both are small, which is at first disappointing - *World Class Leader*



World Class Leaderboard Golf



Board has a full screen view. But there are advantages - the perspective display can be redrawn much more quickly between strokes, and it is nice to have the overhead view always on hand.

There are 25 courses on the disk, together with a course architect program that lets you design your own. You can even copy Concord, and play stroke for stroke with Greg Norman.

For now, let's try the first hole and Royal and Ancient St. Andrews - 385 yards, par 4. A long, straight fairway stretches in front of me, with the green just visible in the distance. Mountains ring the horizon.

A circular meter marks the swing of my club - on the Amiga version, three clicks of the mouse are required to hit the ball. Each click must be perfectly timed. Strangely, nothing happens on the screen until you have completed the process - simply sit back and watch the consequences of the stroke you just played. Like watching a badly dubbed spaghetti western, the effect is disconcerting.

My first drive looks perfect, until the wind catches the ball and dumps it in the stream off to the right. A one-stroke penalty, and I am still 97 yards from the hole. Things rapidly deteriorate - my five-iron shot carries well beyond the green. On my ninth stroke, the ball drops into the hole. Suffice to say, this has been an accurate simulation of my unique golfing style.

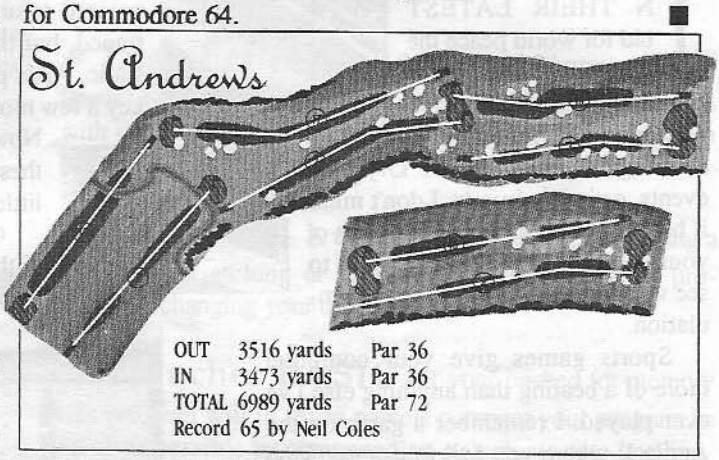
World Class Leader Board offers only four courses - St. Andrews, Gauntlet, Doral and Cypress Creek. Other course discs are available at extra cost, though there is a course architect feature included if you want to design your own. Holes can be played in any order - a nice feature if you have some favorites.

Everything is larger in *World Class Leader Board*, and the extra size adds realism. Swing control is different - this time, you only press twice, and the power of your swing depends on how long you hold the button down. I liked this system better, if only because I managed to complete the first hole at St. Andrews in a much more respectable five strokes. Polite applause echoed around the gallery.

Both games are fun, and either would be a worthy addition to your software library. For my money, though, *World Class Leader Board* has a slight edge in playability and presentation. But try both before you decide.

The Amiga version *World Tour Golf* retails for $49.95. and Commodore 64 users can play for just $24.95. ECP (075) 96 3488.

World Class Leader Board (distributed by Questor, ph 02-662-7944) sells for $49.95 in Amiga and IBM format, $38.60 for Commodore 64. ■



OUT	3516 yards	Par 36
IN	3473 yards	Par 36
TOTAL	6989 yards	Par 72

Record 65 by Neil Coles

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Summer Olympiad

by Andrew Farrell

AMIGA c64

IN THEIR LATEST bid for world peace the Americans have gone sports mad. Shoot'em ups have been given the official canning - now it's all Olympic events, or indoor sports. I don't mind if hotdog sellers come walking out of your screen, but I'm not to keen to see what arrives during a soccer simulation.

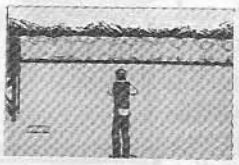
Sports games give your computer more of a beating than anything else I've ever played. I remember a game on the Apple II where you had to use two keys to make your sprinter run his race. Keyboards were in for repair like reporters to a whale rescue.

Now they want me to wreck something else. My joystick. You've got to move it left, then right as fast as you can. Are you kidding? I just picked up the darn thing and shook it from side to side. The effect is perfect providing you have a nice loose stick, and it saves wear and tear on your desk legs.

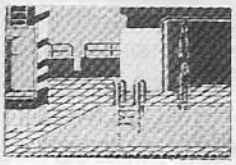
Summer Olympiad is another such game which promises to capture the electric atmosphere of the summer Olympics. The opening music sets the scene - a well - synthesised piece that sounded like a dozen other tunes I know. There's no guarantee the PC or Atari, version will sound as good as the Amigas stereophonic four voices.

Test your skill at High Diving, Skeet Shooting, Fencing, Hurdles and the Triple Jump. And when you're through, just check out the antics of these performers as they run, trip, fall, fly and splash their way through each event.

Option one is LOAD RECORDS. I decided to LOAD the records. A prompt to insert my record data disk appeared, and since I didn't have one yet, I just pressed return. The music continued, but the screen remained static. After pounding the return key a few more times I rebooted. Now that I hate. Can't these game writers be a little more forgiving?



Off to a bad start, with tail between my legs and finger on the N key I tried again. I entered my name, and chose a country. Now who has the best chance of surviving a drug bust in this game? I picked Canada, on the basis that lightning doesn't strike the same place twice.



Six selection screens appear, enabling you to select the next event to compete in. I selected ceremony and sat back to watch the proceedings. A well endowed female athlete carried the torch into view and lit the giant version. This time there were no pigeons roasted.

Next up I was on my way to the **Skeet Shooting** event. I figure this must be the grand tour. Just what I wanted. Press once to launch, the next press is your gun shot. You've got to be real fast. The scenery scrolls left and right as you move your gun, providing a simulated 120 degree view. Well done, hard to master, good animation and sound.

Triple Jump time. As predicted, a break your joystick event, although I think I wore out my stubbies first. Not once did I make the sandpit. The tarmac landing sounded like it was giving my poor competitor a rough time, so I moved right along to the next event. Once again, well animated, even if I did see the same girl in the crowd six times.

With my sword drawn, and helmet latched down, I gathered my courage for a round of **Fencing**. I would have done better, except a chap in the front row kept taking photos, and another guy was eating an apple. Full points for attention to detail, another good section, with excellent graphics but poor sound.

On to the **High Diving**, mind the passing birds, and try to hit the water on something else apart from your stomach. Once under the water your contestant floats down in the same position he landed, rather like chunk of driftwood. Unrealistic mediocrity.

Hurdles were of another class. Maybe it was because I managed a first placing that I liked it. No, I reckon this is one race that despite the joystick breaking antics, deserves a place in your library. Top marks all round. Rear view animation, with distant scenery closing in as the race proceeds.

When it was all over, I think I would have just as soon watched the replays on the late night news. Sorry, but I've had one too many Olympic games to add this one to my recommended list. Objectively, *Summer Olympiad* is well presented with some fine graphics and animation. If you're short on this genre of program or just love Olympic events, be sure to grab a copy. Best played with several players. Great party fun.

Our review copy came from YPA, the Australian distributor.

Available for the IBM PC ($69.96), Commodore 64 ($47.95 Disk, $34.95 Cassette) Atari ST and Amiga ($59.95) range of computers. ■

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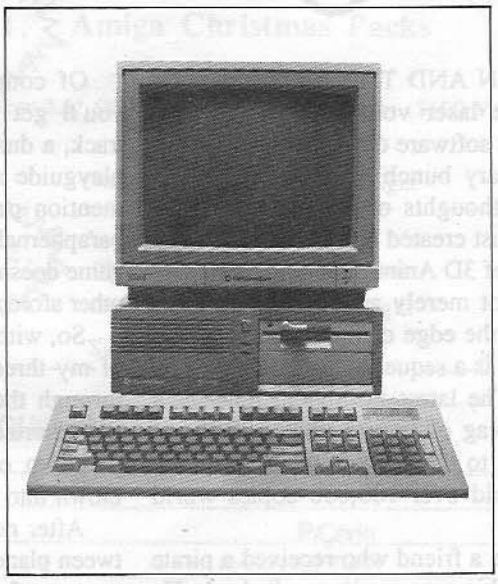

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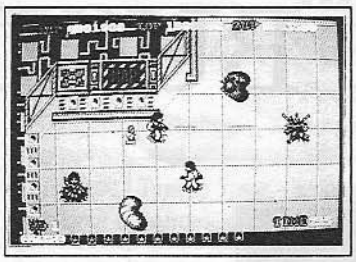
Alien Syndrome

c64 by Eric Holroyd AMIGA

TAKEN DIRECTLY FROM the SEGA coin-op under licence by ACE Software, it's an unashamed all-action shoot'em up. I love this type of game, especially when it's been well programmed and this one certainly has.

Like many other arcade games it has a somewhat outrageous scenario. There's been a catastrophic accident in the experimental genetic laboratory and the space station is overrun by hideous organic mutations. They've captured all the scientists to hold as hostages and it's up to you to rescue them and avert a world tragedy.

It's a game for one or two players, this time either male or female. You choose to play the part of either Ricky or Mary when starting the game. The words "The time bomb is set" see you off on a blast all mission to free your comrades and eliminate as many of the wriggling, grotesque enemy as you can before time runs out and the bomb goes off.



Eight-way scrolling, great music and fast action abound as you explore the space station corridors avoiding the really horrible-looking slimies. They fire at you too so you'll need quick reactions. There's a map to check out for locations and the remaining number of captives is shown at the bottom of the screen as human heads (a real head-count folks!). You'll start with three lives and what's remaining is shown at the top of the screen.

Weapon bays around the station hold flamethrowers, fireballs and lasers that you may collect and use and if you're very quick and skillful you may even get through to see "the biggest, ugliest, most bloodcurdling end-of-levels monsters ever."

This is a really good game, a faithful coin-op conversion with all the atmosphere of the original and I reckon it deserves a place in every serious gamer's library.

Review copy supplied by OziSoft (02) 211-1266 RRP Amiga $69.95, C64 $29.95 C, $39.95 D ■

Starglider II

by Andrew Farrell

AMIGA

J. SAN AND THE Argonauts pack more laser voltage per byte than most software design teams. They're a legendary bunch of guys, under the guiding thoughts of Jeremy San. And they've just created a programming masterpiece of 3D Animation.

It's not merely another intergalactic battle at the edge of the universe. *Star-Glider II* is a sequel to the original *Starglider*. The latest instalment features a whole swag of improvements, that can only add to the success of the original, which sold over 100,000 copies world wide.

I have a friend who received a pirate copy of this game some weeks back. He erased the disk. It was too difficult to play.

Of course, if you buy an original you'll get the extended stereo sound track, a dual format disk, the keyguide, playguide and 43 page novella, not to mention peace of mind. We're talking paraphernalia city. What atmosphere the game doesn't exude, a combination of the other aforementioned goodies should.

So, with the sound track blasting out of my three-ways, *Starglider* rumbling through the Amiga 1081 monitor, and the assorted play guides opened, I prepared to either erase the disk, or be blown into the next galaxy.

After nearly two hours of flying between planets, down tunnels through the centres of planets, between the legs of towering walking life forms, and over the patchwork surface of huge cities, I decided it was time to read the manual.

Sure enough, it all started to make more sense. This game has a plot. It's an adventure, with many tasks to complete, whilst remaining fueled, energised, and armed. It was easy enough to simply fly around, as your starship, the Icarus, is a cinch to control. *Starglider* offers many features normally only found on flight simulators.

Your craft may be viewed from a variety of angles externally, and you can alter your cockpit view in a number of directions.

What you'll see outside is a credit to the designers. *Starglider* originally consisted of a vector graphic landscape with single points at imaginary grid intersections representing the ground. Game play

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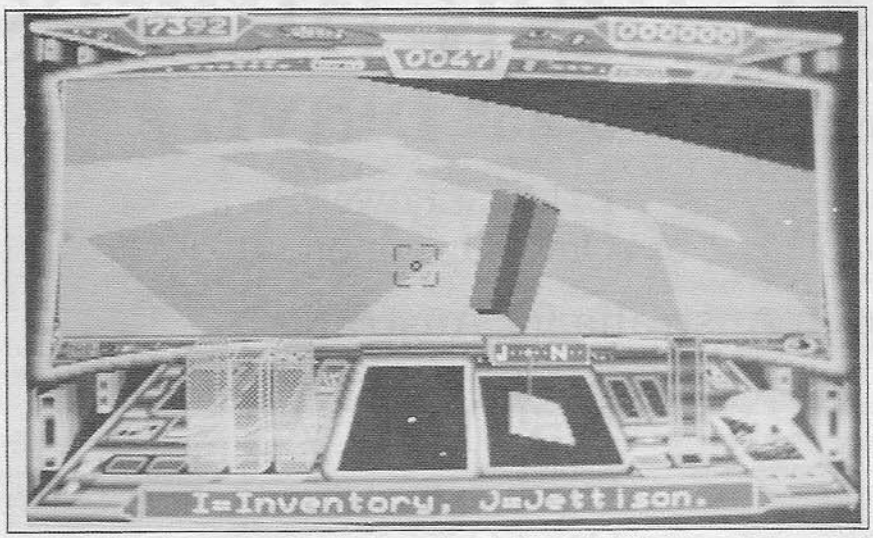

was restricted to this surface. In version two the point system makes way for a solid multi-coloured chessboard like ground.

Vector graphic life forms, buildings and space ships have been replaced with more complex, solid, multi-coloured three dimensional objects. At first one would imagine this massive overhead of graphic data would slow the original game speed to a grinding halt. Not true. J.San and his buddies at the Starglider factory have made the second course faster, smoother and more entertaining.

Now there's a whole solar system to explore. Planets with moons, and atmosphere. Fly between them, do battle on the surface of each, and search for the ... no, you'll have to read the manual for that.

Most of the planet's features are animated in some way. Towers have rotating tops, huge hangers suddenly blast off into the sky, and two-legged stalker run almost kangaroo-like across the scenery. Each alien makes its own noise which is doppler shifted as you approach one of the only computer games I've seen in which this is done. The effect is almost eerie.

Overall, *Starglider II* is a tough game to master. But not so tough that you have to erase your disk. It offers some of the best animation around, and plenty of variety. Just exploring the place can take hours, using either the joystick or mouse. I found the mouse was more responsive, however, the play options enable you to customise the playing environment considerably if you prefer other combinations of joystick or keyboard.

Our review copy came from the Australian distributor, Questor. *Starglider II* is available on the Amiga or Atari for $69.95. Both formats arrive on a single disk. This idea is now being used more widely, helping a larger number of stockists cater for both machines. A very nifty program tricks each DOS format into going to the right part of the disk. ■

Skychase

AMIGA

by Adrian Sheedy

"SPLIT! MAVERICK, there's a MIG on your tail!"

Three dimensional animation is always a big selling point for any game, especially when the animation is smooth. Here is a game from Mirrorsoft with almost perfect animation. There are not many foxfight type games that come as close to real jet combat simulation as *Skychase* does.

The instruction manual says that the game is modeled after Air Force and Navy flight school training competitions. *Skychase* comes with an instruction book and a flight manual. Also included in the version I received was a competition entry form with which you can win a trip for two on the Concord. Unfortunately it says nothing about piloting the Concord.

From the moment the title screen appeared I knew I would like the game. There is an extremely catchy synthesized version of one of Bach's Harpsichord pieces. (At this time I am unable to tell you exactly which piece it is). This is one of the few pieces of software which uses classical music for the introduction.

The game can be played with two people or against the computer. Unfortunately computers don't make great pilots, and playing against one soon becomes boring and repetitive. The demo mode is simply the computer against itself.

The aim is to shoot down the other guy before he shoots you. Most of the action comes when you are playing against another person. Indeed, working out strategies to escape from and attack another plane is intense when the person next to you is trying to blast you.

The game screen is split in half. One side for each player. All the necessary cockpit information is provided below and beside the cockpit window, including radar, speed, altimeter, heading, pitch and roll indicators and thrust.

A visual representation of what is

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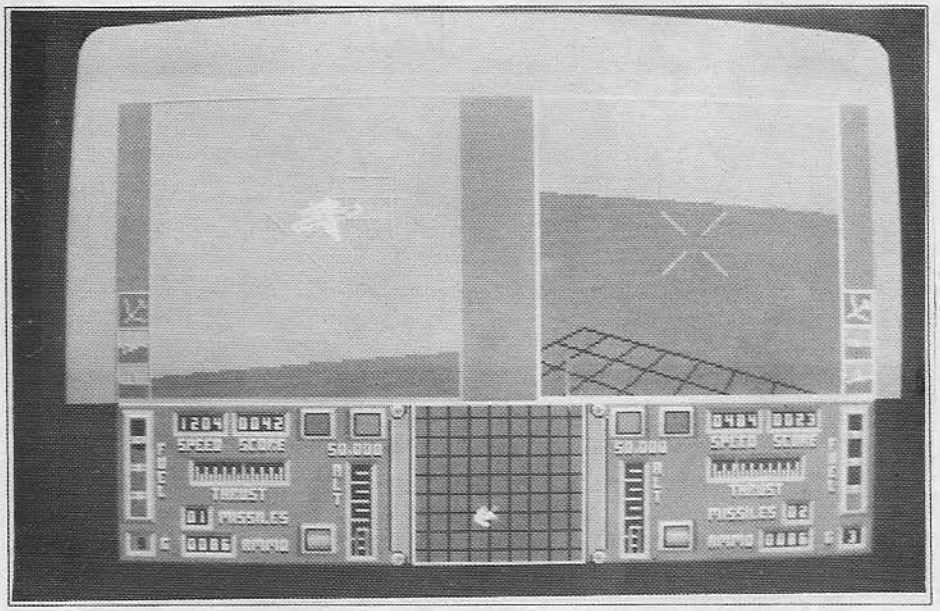

outside is shown from the cockpit window. The ground is a grid pattern that can be set to different sizes, but the game speed is reduced to an unacceptable level as the grid is enlarged.

Fighting to the death in combat aircraft gave me the flying bug. After a couple of hours playing against my brother I went straight to the video shop to rent *Top Gun*, and even considered a change of career.

The jets you see are wire framed 3-D images, and you have a choice of seven different jets, each with its own shape and attributes. You can choose between an F-18, F-14, F-15, F-16, MiG-27, MiG-31, and even a paper aeroplane. Enemy planes are seen in detail as they fly across the screen, and the paper aeroplane is distinctly recognizable as a folded piece of paper.

The small grid size and paper aeroplanes give the fastest game. Attributes of each aircraft is described in detail in the flight manual, and most notably the limitations. A series of common offensive and defensive manoeuvres, such as the Scissors, Yo-Yo, Head On and Lag Pursuit are also described in the manual, although not extremely well.

The main menu screen allows you to adjust the attributes of the aircraft which you choose. You can also turn the sound on and off, and there are two choices for the manner in which your joystick controls the movement of your aircraft.

You can give yourself varying amounts of fuel and ammunition, and change the amount of G-force you will withstand. If this amount is exceeded then you blackout and coast along for a few seconds until you regain consciousness.

It can be tricky lining up the machine guns for the kill in the beginning, but proficiency comes to those who persevere. There are guided missiles which you can use also. These become active when within range of the enemy, and a HUD crosshairs type display is activated in your window which, if released at the right moment, will direct the missile to its target.

Overall *Skychase* is appealing to the budding fighter pilot, and to anyone who likes a mix of strategy and fighting power. It may lose some of this appeal when you have played it for a few hours, but *Skychase* is guaranteed to be a perfect 'once-in-a-while' type game that you get out when showing a new friend your great computer, and your incredible fighter pilot skills.

Available from OziSoft $59.95. ■

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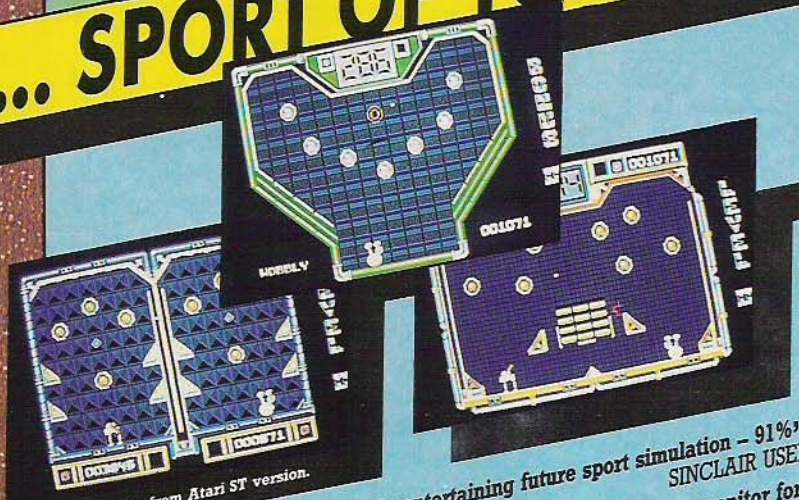
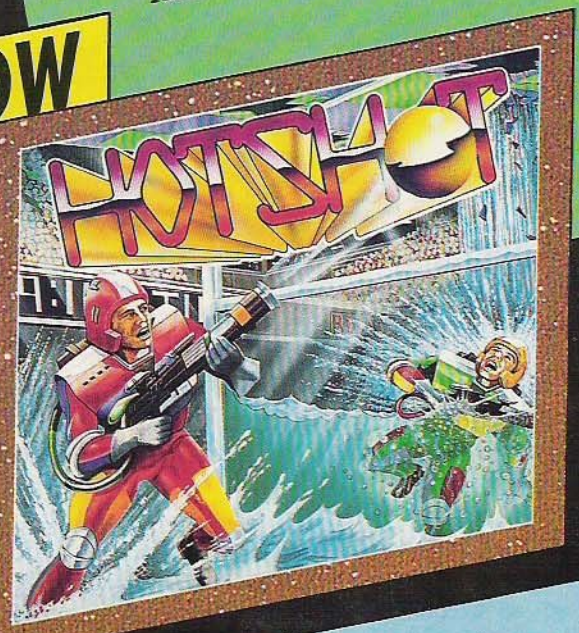


Screen shots from Atari ST version.



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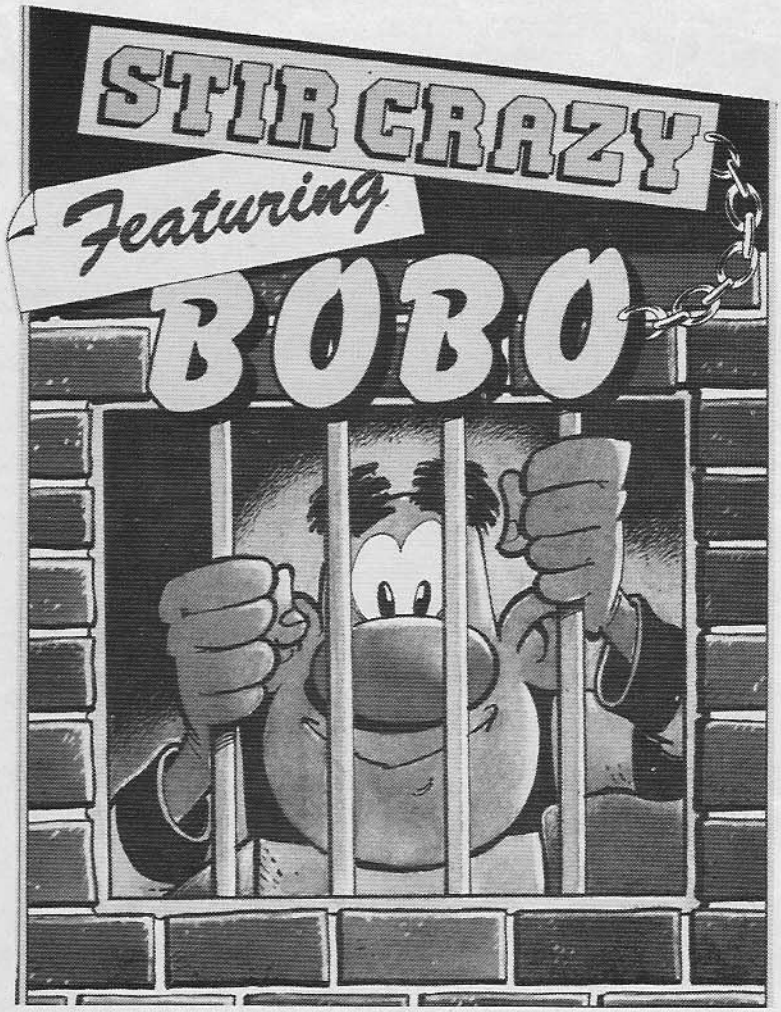

THERE'S SOME GOOD Amiga software coming out of Europe. One French company in particluar called Infogrames are market leaders. *Stir Crazy* is one of theirs.

First of all, up to six players can play competitively with keyboard or joystick. All the player's names are entered after the start up screen has loaded and a double press of the <Return> key starts the game. Simply pressing <Return> here without entering name(s) will run a most entertaining demo.

The plot is quite simple. Bobo is a longtime prisoner of a jail called IN-ZEESLAMMER. He tries to escape with other prisoners by using a trampoline to try and bounce over the wall with Bobo moving the trampoline right and left to let the guys jumping from above land on it to get their bounce. Points are scored for every prisoner helped over the wall this way.

Once over it they have to negotiate electrical wires and only if they jump from one wire to another will they avoid electrocution. This is a good level and the sparks from the wires were almost too quick for me!

Bobo always gets recaptured and has to do various jobs around the prison such as serving in the cafeteria. Here he has to serve six hungry prisoners as they arrive, then give them a second helping when they demand it by pounding on the table. They'll get mad if not served fast so Bobo has to keep hopping here.

Peeling potatoes is another of his jobs and Bobo has a big pile which gets bigger as he works. He needs to be quick so as not to be completely surrounded by spuds and when he's done one he throws it to one side. If it's not peeled properly (graphically represented as a big spud alongside his chair) it'll be thrown back on his pile.

He hates washing the floor most of all because the other guys walk over it and leave footprints. There'll trouble when the warden comes to inspect as he expects perfection, so Bobo needs to keep working to keep the floor clean and free of footprints. A good tip here is to position him in front of the half-open door to stop prisoners coming.

Bobo shares his cell with six other prisoners and has trouble sleeping because of their snoring. He needs his beauty sleep and the only way he can quieten the guys is to nudge them gently without waking them. This stops the snoring for a little while, but as the cell is pretty crowded he has to go up and down a ladder to his bunk, always being careful to jump over the chamberpot!

When they're all quiet he can go back to his bunk to get some sleep (but only until one of them starts to snore again!) If he knocks over the chamberpot it'll wake them all up and then none of them gets any sleep.

This is a good mix of what's really six separate games and I think it has lasting interest as well as that elusive "addictive quality" which makes for a good game. I found it a lot of fun.

Review copy by courtesy of Ozisoft (02)211-1266 RRP $69.95. ■

Express Paint

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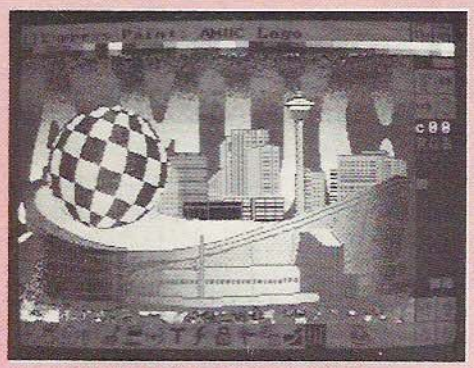
- Far **SIMPLER START UP** sequences for setting screen sizes and page sizes.

and these are just a few of the improvements.



	Express Paint	Deluxe Paint II
PostScript compatible	Yes	No
Reduce/enlarge print	Yes	No
Poster-size print	Yes	No
Vertical page size (pixels)	Unlimited	1024
Horizontal page size (pixels)	8192	1024
Extra Half Brite Mode	Yes	No
Unlimited locks	Yes	No
Multiple active brushes	Yes	No
Text importing	Yes	No
Text justification	Yes	No
Half circles	Yes	No
Arrowheads on lines	Yes	No
Numerous line patterns	Yes	No
Copy protected	No	Yes

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LETTERS TO THE EDITOR

RE: GEOS Problem - D. Coh

I have GEOS 1.3 update which I got from Berkley Softworks and have no problems with work disks. What I think is happening is that GEOS thinks that your work disks are Master disks, in that case you can not work with them.

On your New System Disk you should have had a GEOWrite file called README, open that file and it will tell you about Master disks. If you still have problems contact me on Viatel, mailbox number is 332841330.

Michael Sherman.

The Last Ninja

Does anyone know how to complete the last level of *The Last Ninja*? It's taken me six whole months to get there and once I do, what do I get? The same three or four corridors repeating over and over, no matter what you do. Any help will be appreciated.

S. Bullock, 19 CambridgeDr
Alexandra Hills, Qld 4161

Family Tree Program

I noticed a letter in the latest issue of ACR asking about a Family Tree Program. I know of a particularly good one called *Family Tree* by R64 program which runs in conjunction with *Superbase*. It can be obtained from Rex Twoomy, P.O. Box 84, Berowra NSW 2081. Telephone Home (02) 456 3320. I have found it very successful and easy to operate.

N. O'Flynn
Bateau Bay, NSW

More Family Tree

I read with interest in AC&AR in this column, a request from Laure McConaghey for a Family Tree program, there are several. One, *Ezitree* which is for the C64 and runs through *Superbase 64* database, will do most cartes etc, but I found it slow and somewhat difficult to use.

Another, *Family Roots*, is a dedicated genealogy program for the C64, which I still use. It is slow to load and can't be used with cartridge type fast loaders, the biggest drawback. It will do just about all you require in family history.

Family Roots is by Quinsept Inc., P.O. Box 216, Lexington, MA 02173, USA.

I have to hand a letter from Quinsept listing many other services available to people doing family research, including updates to C128, Apple, IBM, TRS 80, Mac, etc. If any of your readers are interested I would be pleased to pass on the information to them. I may contacted at the address below.

W. Campbell, P.O. Box 712
Derby, WA 6728
PH: (091) 911 699

C64 First Nice Modem

I write in regard to the letter from Bruce Lloyd published on Page 7 of the September issue of *The Australian Commodore Review* (Vol 5, No. 9).

The letter questions an article on Page 36 of your March issue (Vol 5, No. 3) regarding the modifications to a "C64 First Nice Modem" so as to be compatible with the Commodore 1650 modem, and to enable the First Nice Modem to Auto Dial.

Because of the design of the First Nice Modem, it is possible to get the modem to pulse dial telephone numbers by appropriately toggling the modem's DTR line.

Mr Lloyd is correct in noting that the Nice manual says to take the Blue wire to Pin E of the C64 user port - this is the DTR line.

However, the March article describes how to make the First Nice Modem compatible with the 1650 modem, and the 1650 modem uses Pin J of the C64 user port to control pulse dialling.

Unfortunately, the signal on Pin J is logically inverted to the signal of the DTR line and therefore that is required by the First Nice Modem for dialling.

This should explain why the March article says to take the blue wire via an inverter to Pin J of the C64 user port.

We should add, however, that this modification voids the Nice warranty, and while the modem may work for auto dialling, it does not have Telecom Engineering Authorization for auto dialling.

Keira McKenzie
The Nice Computer Company
Suite 3, 41 Rawson St, Epping
NSW 2121. Ph: (02) 869 8777

Metric Conversion Fixes

At the risk of being thought over critical I would point out there is a slight and inconvenient error in the Listing of 'Metric Conversion'.

Whilst on vacation in Queensland recently I had calculated a problem, (by pen and paper not having my computer with me), to include in an article I was writing and, on checking those calculations through

the 'Metric Conversion' program on Disk Magazine 9 on our arrival home, received an entirely different answer which had me anxiously calculating all my figures again!

To my relief my original calculations were correct and when I listed the Metric Conversion program I foound a figure had been left out of line 840 in the conversion factor for transposing millimetres to inches. This figure is "3", and should be between the (9) and (7) in the number .03970. In other words .03970 should be .039370.

A further minor irritation in the program is the fact that lines 310 and 320 are reversed. Line 310 reads 'centimetres to inches' and should read 'inches to centimetres'. Line 320 reads 'inches to centimetres' and should read 'cms to inches'.

I detect in the approach to the computer future a tendency which promises to leave the C64 eventually in a place where, even if not forgotten, it will be considered an oldie' also, suitable for the output of those like myself whose needs are admirably met by our old friend and who have no need of the immense potential of the ever growing Amigas, despite their mouth-watering capabilities!

Even I hanker for an upgrade but my enthusiasm wanes when I consider the cost financially to move up and the cost in the work involved in transcribing my own programs, or replacing expensive programs I have purchased to a new system.

Are we one day going to be isolated? I notice already that the C64 material in most magazines is of a very low content.

C'est la vie, I suppose. Maybe a 128?

My congratulations once more on a very fine magazine. My thanks to Eric Holroyd and many of your other writers, and to you for your own expertise.

E.R. Finck
Windsor Gardens SA

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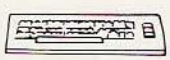

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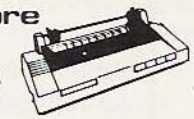

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Cartridge Capers ... *Picking the Best!*

Commodore's C64 enjoys a strong selection of utility cartridges rivalled by no other home computer. Five big boys lead the pack - The Action Replay MK IV, Expert 3.2, Super Snapshot, Freeze Machine and Final Cartridge III. Programmer and editor Andrew Farrell examines the merits of each.

WHEN YOU'RE SPENDING over $100 on a cartridge, it's time to look at available choices. Several options now exist if you're in the market for a DOS speed up/program snapshot cartridge. All offer similar features such as turbo loading, sprite collision removal, program snap shotting with compaction and machine code monitors.

To compare these cartridges and their relevant features, I thought it best to work through each cartridge on its own, and then look at those features supported by most in comparison. Finally, we carried out a variety of tests using programs recently received for review purposes. We looked at LOADing time improvement, ability to snapshot reliably and other such features.

First impressions

Freeze Machine

Australian produced, English designed, the result of several previous versions called the Freeze Frame. This is the cheaper of the five, coming in at $99 recommended retail. The cartridge arrives in a small clip seal box, with an equally small nine page manual.

Two low cost momentary switches are mounted on the top side of the unit, and both are labelled. The cartridge itself is also labelled, and on the rear is a single normal type screw. Removal allows examination of the internals. Nothing is hidden from view. The solder work is clean, there are a total of five chips including one ROM, although the PCB had no protective coating. The buttons are attached by wires allowing the lid to be swivelled away from the main PCB. None of the chips are socketed. Overall, a smart looking, well built device.

An optional utility disk is available for $24.95. There's copy parameters and other goodies on it.

Action Replay MK IV

European design, the fourth version from Datel, who make many fine add-on options for the C64. The cartridge is unlabelled. Its casing is exactly the same as the Freeze Machine, however the two momentary switches are mounted on the right hand rear edge.

A single phillips screw allows access to the interior, exposing one ROM and one custom Datel chip on the reverse side. The ROM was socketed, meaning it could be upgraded. However, there was also one jumper wire, and the soldering is a bit rough. The board is coated with an anti-dust film similar to the C64's PCB.

Inside the video sized box is a 22 page manual - the pages are unnumbered. It appears easy to read, and reasonably well written. Going price for this unit is $139.

Super Snapshot

A different design, with a single press button on the top right corner. The cartridge is labelled, and sealed, meaning there's no access to the inside. Chances are it's filled with biciliate meaning you'll never know the identity of the chips even if you smash it open. This does have the positive aspect of giving the unit a strong solid feel.

The 35 page manual is spacious, well written, with a quick index at the front. Overall, a good solid package. Price is $108.00

Expert Cartridge 3.2

And now for something completely different. A sealed unit, with a lighter feel than the Super Snapshot - therefore no biciliate. On the rear back of this well labelled cartridge are two high quality momentary switches, and a three position switch with a good solid feel. This is a good looking unit, that feels well built.

A 15 page small print manual is included, along with numerous bits of paper on using some of the newer features. A disk is included, and there's also an optional utility disk. The cartridge is priced at $108, and the extra disk is $24.95.

Final Cartridge III

A black cartridge with two high quality momentary switches on the rear edge. A small LED is on the top right corner. The unit is labelled, and there's a phillips screw on the back. Inside there are two ROMS, and six other chips. Soldering is top quality, the PCB is treated and overall the general layout and design is really exceptional.

The manual is some 58 pages long, in well laid out, easy to read print. There's a full index at the front, and example pictures throughout. A good strong product. RRP for this one is $139.00

Continued on page 34

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Feature Test

Fast Format a Disk

Commodore's own format command (OPEN 15,8,15,"N0:name,ID") is slow to say the least. Most cartridges provide some form of fast format option. The faster results are likely due to the format being unverified. Where both a menu option and an extended BASIC command were available, both were timed separately.

Cartridge	Method	Time	Are you Sure?	Verify
Final III	Menu	.30	Y	Y
	DOS"	1.18	N	Y
Super Snapshot	>FN0:	.35	N	Y
Freeze Machine	Menu	.16	Y	N
Expert 3.2	Menu	.35	Y	Y
Action Replay	Menu	.14	N	N
	>N0:	.13	Y	N

Retrieve and Display Disk Directory

(Using Disk Magazine 12)

Typing LOAD"$",8 removes the program you have in memory, which is a real pain. Several of these cartridges provide a DIRectory function from BASIC. Others had a menu option.

Cartridge	Full DIR	Time	Pause	COMMAND
Final III	Y	9.3	Space	F7/DO S"$
Super Snapshot	Y	9.3	Space	>$
Freeze Machine	Y	9.3	Space	MENU
Expert 3.2	NA			
Action Replay	Y	9.9	Space	MENU/@$

Snapshot a Program/ReLOAD - Default Settings

(*Fox Fights Back/Typhoon*)

Here's the clincher. Will the cartridge back-up the program you need? We tested two new releases - the results are very useful.

One program, *Fox Fights Back*, could only be archived using the Action Replay IV.

Cartridge	FFB	Typhoon
Final III	Failed	.30
Super Snapshot	Failed	.21
Freeze Machine	Failed	.17+
Expert 3.2	!	!
Action Replay	.10*	.9*

* Using WARP x25 Loader which requires cartridge in place.

! We were unable to get the cartridge to accept the Freezer Program. However, other user reports indicate it does work in most instances, although not for FFB.

+ Using Laser Loader.

Glossary

Snapshot : The entire C64's memory is captured, compacted and saved as one or more files. Upon reloading, the program restarts at the moment it was snapshotted.

Multi-Part: Some programs have several parts which need to be handled individually.

Resume: The ability to continue running the program in memory even after snapshotting, or executing sprite disable options etc.

Cheat Entry: Pause the game, return to BASIC or a monitor, enter the cheat POKEs, then type a SYS to restart. A RESET switch may do the job sometimes - although some programs diable the usual RESET function.

Sprite/Sprite: Disable sprite to sprite collision used in games - especially older designs.

Sprite/Back: Disable sprite to background graphics collision.

Auto-fire: Small wedge placed in program to allow the joystick to just constantly fire - for shoot'em ups.

Picture Grab: Capture picture on screen. Some cartridges only grab certain modes - check out the manual if you're after something specific. The graphics utility from Cockroach software will handle all.

Picture Print: A screen dump to printer - giving you a hard copy to put on the wall, or send us your high score. (With Sprites means that sprites are also printed.)

Colour Print: Support for printers such as the OKI20.

Centronics: Print output via USER port to a centronics printer using a special cable. Micro Accessories sell one such cable, the GEOS cable will also do the trick.

Utils Disk: Some menu functions call on a utility disk for extra options.

Disable: Can the cartridge be disabled without being removed from the cartridge port.

Tape Turbo: SAVES to tape add a turbo loader at the start of the program.

Turbo Format: Disks may be formatted at super high speed by reducing the amount of verification, increasing the step speed of the write head, and generally rewriting the built in DOS of the 1541.

Turbo LOAD: Programs saved to disk have a normal Turbo Loader added that will then work on any computer with or without the cartridge.

Self Turbo: A special save format that only works with the cartridge in place, but tends to be very fast. (x25)

Wedge: A standard set of DOS commands using the > symbol to send what normally goes via the PRINT#15 command. Also extra features like >$ for a directory.

Own Commands: Additional DOS commands such as DLOAD, DSAVE etc which require no device number.

Extended BASIC: Additional BASIC commands.

Scroll 2 Ways: BASIC listings may be scrolled up and down going back or forward line numbers.

Monitor: A machine language one line assembler/monitor.

Disk Monitor: Access to disk drive's memory is possible to view memory or ROMS.

Sprite Monitor: Sprites may be captured and viewed or saved from a game.

T&S Editor: Track and Sector editing of disk either directly or in memory.

Reset Button: A warm start - like switching on, without losing what was in RAM.

OVERALL Feature List

	Final Cart.III	Super Snapshot	Freeze Machine	Expert 3.2	Action Replay
Snapshot	YES	YES	YES	YES	YES
Multi-Part	NO	YES	YES	YES	YES
Resume	YES	YES	NO	YES	YES
Cheat Entry	YES	YES	YES	YES	YES
Sprite/Sprite	YES	YES	YES	YES	YES
Sprite/Back	YES	YES	YES	YES	YES
Auto-Fire	YES	NO	NO	YES	NO
Picture Grab	YES	YES	NO	YES	YES
Picture Print	YES	YES	NO	YES	YES
with Sprites	YES	NO	NO	NO	NO
Colour Print	YES	NO	NO	NO	NO
Centronics	YES	NO	NO	NO	NO
Utils Disk	Extra	YES	Extra	Extra	Extra
Disable	YES	YES	NO	YES	NO
Tape Turbo	YES	NO	YES	YES	YES
Turbo Format	YES	YES	YES	YES	YES
Turbo LOAD	YES	YES	YES	YES	YES
Self Turbo	NO	YES/x25	YES/LASER	NO	YES/W ARP25
Wedge	YES	YES	NO	NO	YES
OWN Commands	YES/Turbo	NO	NO	NO	YES
Extended BASIC	24K	NO	NO	NO	YES
Scroll 2 Ways	YES	NO	NO	NO	NO
APPEND	YES	NO	NO	NO	YES
ARRAY	YES	NO	NO	NO	NO
AUTO	YES	NO	NO	NO	YES
BAR	YES	NO	NO	NO	NO
BOOT	NO	NO	NO	NO	YES
DAPPEND	YES	NO	NO	NO	NO
DEL/ETE	YES	NO	NO	NO	YES
DESKTOP	YES	NO	NO	NO	NO
DLOAD	YES	NO	NO	NO	NO
DOS	YES	NO	NO	NO	NO
DOS "$	YES	NO	NO	NO	NO
DSAVE	YES	NO	NO	NO	NO
DUMP	YES	NO	NO	NO	NO
DVERIFY	YES	NO	NO	NO	NO
FIND	YES	NO	NO	NO	NO
KILL	YES	NO	NO	NO	NO
MEM	YES	NO	NO	NO	NO
MON	YES	NO	NO	NO	NO
MREAD	YES	NO	NO	NO	NO
MWRITE	YES	NO	NO	NO	NO
OLD	YES	NO	NO	NO	YES
ORDER	YES	NO	NO	NO	NO
PACK	YES	NO	NO	NO	NO
PDIR	YES	NO	NO	NO	NO
PLIST	YES	NO	NO	NO	YES
RENUM	YES	NO	NO	NO	NO
TRACE	YES	NO	NO	NO	NO
UNPACK	YES	NO	NO	NO	NO
$	YES	YES	NO	NO	YES
Monitor	YES	YES	NO	YES	YES
Disk Monitor	YES	NO	NO	NO	YES
Sprite Monitor	NO	YES	NO	NO	YES
T&S Editor	YES	YES	NO	NO	NO
Calculator	YES	NO	NO	NO	NO
Notepad	YES	NO	NO	NO	NO
Reset Button	YES	NO	YES	YES	YES
Specific Support for:					
1571	NO	YES	NO	NO	YES%
1581	NO	NO	NO	NO	YES%
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Continued on page 38

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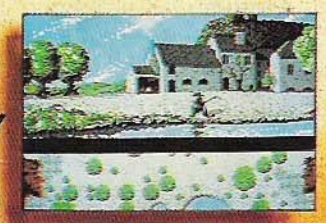
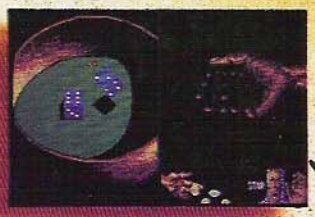
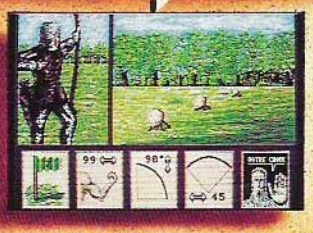


Screenshot on C 64



Screenshot on ST

Screenshot on ST



Screenshot on Amiga

Screenshot on ST

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Conclusions

Final Cartridge III

Without doubt the most full-featured option - but not necessarily the most powerful features. The extended BASIC is useful, and the point and click menu system certainly easy to use. We have had some reliability problems, but providing you only use disks formatted using the FCIII, you should be right.

The snapshot function is as reasonable, and the turbo functions aren't consistent across all disk options. The turbo loading, function key commands and general startup and operation are all well designed.

I would recommend this cartridge to disk only users, who aren't big on assembly language, enjoy BASIC, and prefer easy to use functional systems. It's readily available, well documented, and bound to keep you happy for some time. (Full review in the August '88 edition.)

Expert Cartridge 3.2

This one has really got me stumped. The idea is that you get a blank cartridge that is programmed from a disk. The catch is you can only have one program installed at a time. Even though the Expert appears to have many features - you can only have a few of these in at one time.

The Expert designers have traded functionality and flexibility against practicality. It's clumsy, awkward and hard to get going. The manual is poorly written - something I discovered only after trying to use it.

For the hardened hacker, or the dedicated tape user, this cartridge could be a good choice. It has plenty of future flexability - it's easily updated, and if you're smart enough you could put your own programs into the Expert's memory. Programmers and tape users, if you don't mind doing a bit of fussing around to get going, you'll get plenty of power. (Full review in the July '88 edition.)

Super Snapshot

Probably closest matched with the Freeze Machine. A bit gimmicky with the pop out menu system, neverthess some functional features. A nice brief Wedge system for DOS access. File and disk backup options. Easy to use - but perhaps lacking a few bells and whistles. The parameter disk has some fine features - and coupled with the *Slideshow* software available from the same guys, this cartridge has plenty to offer. (Full review Febuary '1988).

Freeze Machine

A strong package for non-programmers wishing to make archives of most programs. Easy to use, menu driven, with a few strong turbo LOAD options. Dragged down by poor documentation, and a couple of confusing design options. Ideal for tape users. Lacks any BASIC extensions even for simple DOS functions. Lazar loading system, is good if a little clumsy. Overall, a good solid product with strong local support. (Reviews and updates in September '85 and August '85.)

Action Replay MKIV

For the programmer/hacker and general user who does a lot with graphics and likes to fiddle with games, this is the cartridge. Plenty of options, with something for everyone. It's biggest draw back is poor construction. (Our review unit failed toward the end of preparing this article.) Best feature is the custom Datel chip that contains the most advanced snapshot facilities around. Action Replay copied or snapshotted all the programs we tried.

The menu system is brief, but operational. The manual was easy to refer back to after our initial look. There's some very powerful, reliable options. This cartridge is very highly spoken of by many users, and is earning a reputation as the best choice. Upgrades are in the pipeline, but supply to Australia may be inconsistent. (MKIII reviewed in December '87.)

Final Words

There's no single answer. There's some preferred choices depending on your system configuration. Check out the features you especially want, and then decide. All have something to offer, but not all are always on offer! Freeze Machine and Final Cartridge III are sold by most dealers. The other three may need to be ordered in. ■

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Joystick Jamboree

by Andrew Farrell and Damian Disney

Tired of guessing which joystick is going to last more than the first gruelling half hour of your favourite shoot'em up? Or perhaps which stick has the dexterity to make it through the toughest level of the latest levels and ladders game? In this exhaustive appraisal of all the current offerings, we hope to make the decision somewhat easier.

THERE ARE TWO basic models. Those which use proper metal contact switches or micro-switches and those which use a PCB with a membrane overlay. The latter wear out very quickly.

The crunch comes in comparing joysticks of the same mechanical advantage - the grip, button position, general feel and so on. That's what we'll do first. At the very end is an over all comparison, feature by feature.

We devised a number of game tests in order to draw ratings for various aspects of each stick, including pulling them apart, and generally bouncing ideas off each other as to what we thought. Much of this is a matter of personal opinion.

Before making your choice, make sure the stick is comfortable in your small or big hand, and that the button has the right feel. Play a game or two if you can. Unless you are on a tight budget, always go for micro-switches in the main grip and preferably for fire buttons too.

Suction cups are good, but rubber feet on most other models are sufficient. The bigger sticks do need the cups to stay in place, and these are provided. Make sure the stick you get has all the features described on the box. Check it out before you leave the store, as cheaper models tend to have a high variance of quality.

Atari Standard Joystick

Easily the oldest contestant, now too long in the tooth for serious consideration. The handle is too short for adult hands, and lacks tactile feed back. The button on our version was dead. The base is small and slippery. Inside, construction is cheap, making use of membrane contacts. A good cheap alternative - you can afford to have a few of. Distributed by Atari RRP $14.95.

Dcom Joystick 400

This joystick has a very positive feel with three fire controls for either thumb use, or left or right hands however, these tend to be placed too close to the base of the joystick for ease of use, leading your hands to fight for space on the controls. The contacts are of the membrane type and the unit has four suction feet to secure it during particularly aggressive play. OziSoft RRP $14.95

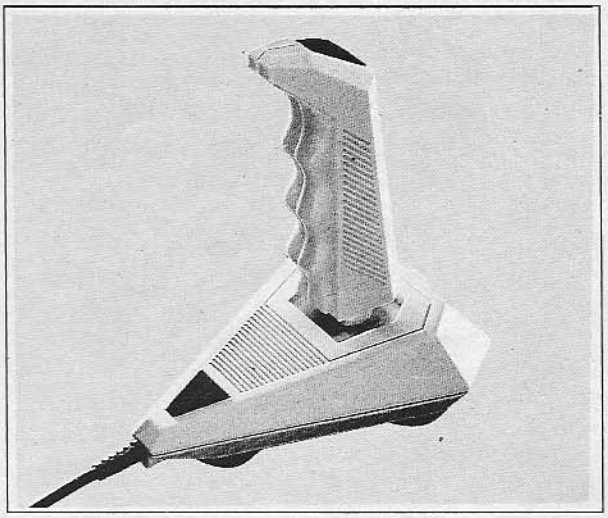
Competition PRO 5000

The packaging says Arcade Quality Joystick and by the feel of the control it certainly is. Two fire buttons are located on the base of the unit but none on the handgrip. They lack the positive 'click' of other units tested, which can lead you to wonder whether you really fired at that guy. The lack of suction feet on the base gives you just one more task to grapple with, that of holding it down. OziSoft $39.95

Winner 770

A white elephant of sorts, this stick attempts to emulate the feel and action of a proportional joystick. What's the point? The C64 and Amiga both expect and want the reactionary speed of a normal switched stick - which is what this stick actually is. There's no tactile feedback in this design. The fire buttons have a good feel, although the button on the stick is too soft. A clunker. Pactronics $29.95.

Micro-Switch Challenger

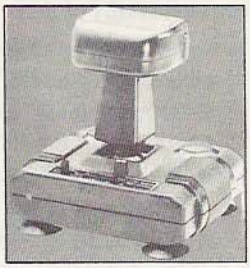


All looks, no go. Bad stick design makes it possible to get your fingers caught under the hand grip. The membrane buttons are shocking! Fortunately there is a auto-fire button. The stick movement is sensed by micro-switches -

however the stick is wrongly proportioned, so that it is difficult to sense when to expect the switch to click. Good feed back from a comfortable grip when held correctly. Good strong suction pads. Pactronics $29.95.

Joystick

Looks like a cross between the robot from *Lost in Space* and a Ford automatic gear lever. Ideal for car games, as one button sits on either side of the enlarged handl's head. The packaging said to look forward to auto-fire and adjustable speed - but our model was void of these items. Overall, weird design, that sits solidly on the table thanks to good suction caps. No doubt, this stick would take a hammering, but like the Atari unit, break just too soon not to be worth having a few spares of. Pactronics $19.95



Winner 220

It's a micro-switch stick that feels like there's sludge caught down there somewhere. Too many clicks and not enough real movement. Well placed fire buttons, right under your thumb and index finger for trigger happy action. Also two base mounted buttons with reasonably good feed back. A solid base, with big suction caps. Inside we found budget designed micro switches that seemed strong enough - but time will tell. Pactronics $29.95.

Zapper 120

Designed to match the colouring of Oscar (lime green) and be used in the dark, this model has the lousy base used on the Pactronics Joystick and the great grip of the Winner 220. Four fire buttons and an auto switch on the base "for higher scores" according the manufacturers. A time bomb switch to make sure it fails just when you get to the highest level of that starfighter game. ECP $19.95.

Navigator

Comfortable, strong, micro-switch action. Trigger finger fire button. Must be hand held - which is fine for some games, but forget this design for radical shoot'em ups. Good for levels and ladders and simulators only. Unique never to be pulled apart construction is a credit to the guys who had to screw it together. We nearly gave up after inspecting the innards of this model. Don't try it yourself. ECP $44.95.

Quick Gunner

Another small design, similar to the Dcon with one less fire button and a longer handle. The fire button is too small, the overall feel is cramped. There's good strong suction cups, and the grip is quite comfortable. However, the fire button is a big let - down. Membrane action, el cheapo city again. You'll be buying a few of these no doubt. ECP $14.95.

Star Cursor

Australian made, Australian designed, and according to its makers, in line for an award for just that. A tough, heavy duty, large-sized no-nonsense stick that will well and truly stick to your desk. It's heavy in all departments with a capitol H. Three fire buttons, all microswitched. One on top of the fire button, and two at the back of the split level base.

One complaint. I like my fire button at the front. Although this takes some getting used to, with the right arrangement of hands, arms, joystick leads and table, this beast is king of the league. To top it off, it's relatively low priced. This unit is not officially available until January 1989, so when that date rolls around call Starcurser on (075) 37-5452. RRP $49.95. ■

Model	Switch Type	Suction Caps	Fire Button	Fire B/Type	Overall Const.	User Rating Sim/Act	Price
Atari	Mem.	NO	1-Base	Mem.	4	5	14.95
Dcom	Mem.	YES	3	Mem.	5	6	14.95
Pro5000	Mic.	NO	2-Base	Mem.	7	7	39.95
Winner770	!!!	NO	3	Mem.	5	3	29.95
Challeng.	Mic.	YES	2-Auto	Mem.	6	6	29.95
Joystick	Mem.	YES	4	Mem.	5	6	19.95
Winner220	Mic.	YES	4	Mic.	7	8	29.95
Zapper	Mem.	YES	4-Auto	Mem.	5	5	19.95
Navigator	Mic.	NO	1-Auto	Mic.	8	7	$44.95
Quick Gun	Mem.	YES	2	Mem.	5	6	$14.95
Star Curs	Mic.	YES	3	Mic.	10	10	$49.95

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AMIGA

Software for the disabled

by Phil Campbell

IMAGINE FOR A moment that you wanted to read a railway timetable. I know, I know - why bother? Trains are never on time anyway.

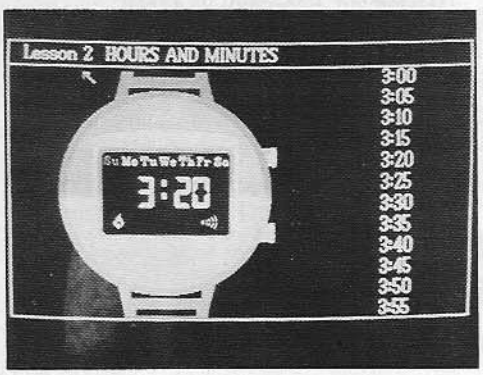
But imagine. What is involved? An everyday skill, one of hundreds we use every day without a moment's thought. Using a telephone or Automatic Teller Machine, telling the time or reading a calendar are second nature to most of us - but major obstacles to thousands of intellectually disabled Australians.

Geelong - based Cerato Software has just released a range of Amiga educational software designed to teach basic survival skills. Rhonda Sadler, visionary founder of Cerato, is delighted with the Amiga's capabilities.

"Photographic quality graphics and digitally recorded human speech make the programs readily accessible to people who are print disadvantaged," says Sadler.

The addition of an optional touch sensitive screen makes the system amazingly user friendly. With an invisible pressure sensitive mesh covering the face of the monitor, the programs can detect the slightest poke of a finger.

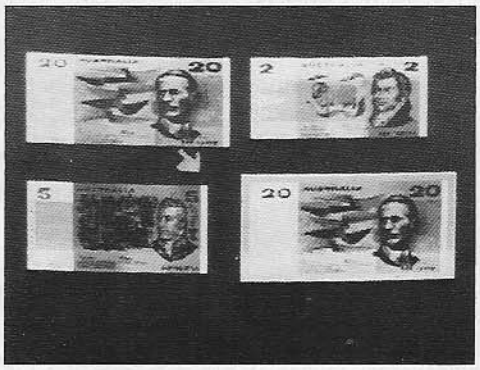
Touch screens are ideal, but expensive, adding over $1000 to the cost of a system. Mouse, keyboard or single switch input options are provided on all Cerato programs.



Sadler demonstrated a Money Recognition program at the recent Australian Computer Exhibition. The screen displays a colour picture of four banknotes; a clear female voice asks me to identify a note. This was a touch screen system, so I simply touch a note on the screen to respond.

"Very good," says the machine - and I progress to something a little more complex. Sensibly, the two dollar note still appears on the screen display. Who knows? Paul Keating may yet relent.

I was immediately impressed - this

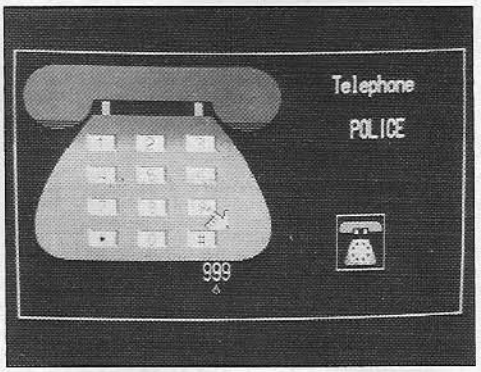


was as much fun as any game, and obviously a well written program. It looked good, and it worked smoothly.

Still on the subject of money, the Automatic Teller Simulation looks good too. The screen accurately simulates the control pad of a typical banking machine.

Again, the touch screen is a great advantage, as you can actually press the buttons on the display. Even so, the program is easy enough to control with the mouse, which moves a small hand shaped pointer around the screen.

Unfortunately, cash withdrawals are not possible - but everything else works fine. This time there is a computer generated voice with a robotic ring, but the instructions are still easy



enough to understand.

Other programs in the Cerato range include Number and Letter Recognition, Number Concepts, Telephone Skills, Time Telling and Survival words. A number of other titles are in development.

Cerato is a nonprofit organization, working hard in an exciting new field. Their programs have already been shown to improve numeracy, literacy and living skills - as a useful side-effect, students have developed enhanced self esteem and independence in controlling the computer system and initiating new learning experiences. I reckon it's great.

Phone Rhonda Sadler on (052) 485 758 for further information - or even just to offer a bit of moral support. Better still, why not offer to donate the cost of your next computer game?

Cerato rely on public funding. "We are not just a bunch of computer programmers trying to flog software," says Rhonda. "We probably should be running a Christmas raffle along with everyone else. But who's got the time?"

Life is not a game when Timetables, Telephones and Teller machines present an almost impossible challenge. For most of us, the frustration is hard to imagine. Then again, the buttons on video recorders and digital clocks remain a mystery to almost everyone. Perhaps Cerato could . . . ? ■

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c64

Heart Lab

by Eric Holroyd

Are you stressed out? Do you spend too much time behind the keyboard? Perhaps it's time to check out your fitness level. Eric Holroyd volunteered to check out the gadget you'll need.

THIS UNUSUAL PIECE of software/hardware came my way on the very day that I was to visit a heart specialist for a stress test! Talk about timing!

We should all be aware of the importance of physical fitness, and I don't mean the Olympic athlete kind of fitness - just the normal sort of physical well-being. The heart of course is at the centre of it all and C-64 owners can now monitor their own hearts with this piece of equipment.

Basically, it's a sensor which plugs into the C-64 (or C-128 in 64 mode) and clips onto your ear to pick up heartbeat impulses there. Apparently this is a very sensitive part of your body and impulses are easy to pick.

Once hooked up, and with the software loaded and running, you do a Fitness Evaluation test involving some exercise to get the heart-rate up and monitor it via the screen displays. That's the basis of *Heart Lab* and I think it's a great idea.

The extensive manual directs you to make a backup of the master disk for each person using the program, necessary as all your personal health info is stored on the disk as you answer the various questions that come up.

You're also recommended in one screen display to see a physician before exercising and on another you have to read and acknowledge a disclaimer that BodyLog Inc and its affiliates are not responsible for any injury whatsoever. I think it's a good idea to do as they say in the first place and check with the doctor prior to taking up any exercise program.

Step up

Having "personalized" your copy of the disk you get on with exercising. They suggest a wooden box or step about 8" high that you can step up and down on. The software makes it fun as there's a countdown to start, then you have to keep in time with a beat to make the exercise/test a valid one.

To lessen the movement of the sensor clipped to your ear there are some metal clips supplied so that you may clip its cable to your collar, or even to a headband. Choose to take a one or three minute test, with the latter providing the most accurate Fitness Evaluation.

There are 24 step-up-step-downs in the first and 72 in the second by the way, so you know what you're in for. Not like the doctor I went to for the stress test who put me on a kind of moving conveyor belt where I had to keep walking. After a couple of minutes he put the speed up and just as I'd had enough he increased it some more and inclined the thing so I was walking uphill too!

After doing this test you're directed to "rest and recover" whilst still hooked up. It's important that your heart has the correct "recovery rate" and again it's all shown on screen together with an evaluation of your heart fitness. At this stage you may save the results to disk to keep track of your heart's performance.

In the manual there's also a great deal of advice about eating and regular exercise plus an "exercise recipe" menu where you decide to do a regular amount to get fitter. Choose from 10/15/20/25 minute sessions which you can monitor with the *Heart Lab*+equipment. An exercise bike is recommended, but a rowing machine is OK too.

They mention walking/running on a treadmill too (there's my doctor again!) and the good old 8 inch step up and down is useful too.

Advice given throughout the book is of the "commonsense" variety and points out danger signals to watch out for too (chest pain, dizziness, cold sweat, fainting etc) and it's all aimed at promoting "health through exercise". The author takes great pains to say that exercise should be pleasurable and not painful.

An interesting concept called Resting Heart Rate is used as a point of reference for basic fitness too and an intriguing test establishes what yours is. After entering the appropriate menu you get a screen display of a telephone with the handset up in the air. You have to relax your body (and thereby lower your heart rate) to get the handset to drop down and sit on the phone.

As well as establishing the Resting Heart Rate it teaches you quickly how to relax by lowering the heart rate, thereby avoiding stress damage.

Piggy Bank

Another "learn-to-relax" program is the Piggy Bank option. In this one, you first of all raise your heart rate by exercise (the 8" step again) and when 10-15 beats per minute above the Resting Rate you select Piggy Bank from the menu. A graph comes up showing your present heart rate with a piggy bank on screen too.

The object is to get coins to drop down into the pig by lowering your heart rate through relaxation. Try to save as much money as you can and next time

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try to do even better. This is a good way to raise and lower your heart rate and the manual says that provided you don't have any actual heart problems it's excellent training.

If you've done the Fitness Evaluation test outlined earlier (and saved the results to disk) you'll find that there's a safety feature included in Piggy Bank that won't let you go above your target zone which was determined there.

Sensor Basic

The American company making *Heart Lab* has other health care programs and hardware on the market for Cardio Exercise, Muscle Development, Stress Reduction etc and have even developed their own extension to Commodore Basic for the software. It's called SensorBasic and a book on the subject is enclosed with *Heart Lab* which explains the commands.

It's pretty straightforward stuff and there are explanations on how to use SensorBasic in programs yourself, also how to change the units of measurement (kilos instead of pounds and so on).

This all seems like a useful package to me, and should appeal to anyone with health and fitness in mind who wants to put their computer to valuable use.

Evaluation unit furnished by Dastron (02) 712-3124 RRP $139.95. ■

Access 64

AMIGA

In line with October's "Stepping Up to an Amiga" feature, here's another gadget to add to the collection. This one enables files to be transferred between your CBM DOS and AmigaDOS. Eric Holroyd explains.

I'VE JUST SPENT a very interesting half-day transferring *Easy Script 64* files to my Amiga 1000 with a 1571 drive hooked up to it!

I also transferred some *Fontmaster 128* and *Fleet System 128* to the Amiga, then formatted a 5.25" disk in Amiga format and used it as a data disk to save files from *Kind Words* and *TxEd*. Copying files to this disk is achieved by dragging icons to its window from another disk's window.

Access 64 is not an "emulator". It's more of a "translator" and is a hardware and software system which allows all this transferring to take place. It consists of a colour co-ordinated plug-in gadget which fits into the Amiga's parallel port (you need to specify A-500 or A-1000 for this) and a single disk of utility programs. The plugged-in gadget takes the normal 64/128 disk drive cable. Connect up your 1541 or 1571 drive then "daisy-chain" other 64/128 peripherals to it and off you go.

The system is designed for owners of 64-128 disk drives and printers who have now bought an Amiga. Rather than buy a second Amiga drive they can use their 1541 or 1571. *Access 64* is also fully compatible with the 1581, that great-sounding 3.5" drive which Commodore hasn't yet seen fit to make available to Australian users. (*Although various third party imports are available - such as Diskworks - Ed.*)

1541 drives formatted in Amiga format get 30 cylinders (or tracks) whilst 1571 drives get 60. This formatting process is not very fast and is one of those tasks that you set up before having a meal break. By the time you come back the job's done.

Main program

The main program is called BusUtil and it's here that you read your 64/128 disk directories and do the transferring to AmigaDOS etc. The disk has a full Workbench 1.2 and creates a RAM disk as part of its boot-up which comes in very handy. Using BusUtil you may transfer SEQ or PRG files with the option of "ASCII Filtering" On/Off. This is so that you can use PET ASCII files such as *Easy Script* as well as Standard ASCII files as per *Fleet System*.

Transferring in the other direction is also possible, and you can save files from your favourite Amiga word processor in ASCII or PET-ASCII format to be read on a 64/128. I found that by having ASCII Filtering on I was able to transfer files from the various word-processors above quite easily. Once I tried a file with it off and got lower-case reversed to upper-case and all capital letters from the original file were deleted. My own fault for not reading the instructions, but of course *you* always do read all the instructions first, don't you?

When I send in my copy to our revered Editor I do it on disk as an ASCII file with all embedded commands (such as Underline, Bold, Italic etc)

```
Access 64 is a collection of programs designed to replace some of
the Workbench modules included with a standard Workbench disk to
allow use of Commodore serial printers, and Commodore serial disk
drives such as the 1541, 1571, or 1581. Accss 64 is supplied
ith a copy of Workbench 1.2 ready for you to boot. This opy of
Workbench 1.2 is subject to the same license agreement as the
Workbenc software that came with your system. The Access 64 disk
is not copy protected and may be copied for backup purposes only.
The Access 64 modules may be moved to a hard drive or to a copy
of Workbench 1.3 when it is available. See the manual for details
on this process.
```

stripped out. I found that the same type of file was easier to work with when transferring from 64/128 to Amiga format.

If I transferred an existing *Easy Script* file the embedded commands and "set-up" at the head of the document were all still there and I just loaded the file into *Kind Words* and deleted them then re-saved it. There's obviously some "cleaning-up" work required when transferring files but it's an awful lot quicker than retyping the whole thing!

Daisy-chained printers

I daisy-chained the Star NX-10 to the back of the 1571 and did printouts using different Amiga programs. One called *PrinText* lets you display, print or speak any text file and I sent a number of files to the printer using this. The NX-10 had a XETEC Super Graphics interface hooked up so that it emulates a Commodore 1525. Therefore I was really using a straight "Commodore" printer.

I used the front panel switches on the printer to print the Access "ReadMe" file in Near Letter Quality, Pica print, and Compressed print+ (this one is shown in the inset) and finally in Draft mode. Everything worked, although I did notice the odd character not being printed here and there.

I'm still not sure if I did everything right in the printer department. It seems anything to do with printers and printing software is very much a case of experimentation to see what works best, then stick to that setup.

There's a new printer driver in the software called parallel.device which the book says "will work with most printers". If the printer produces weird characters then there's a secondary parallel device which should make it all work properly. The manual covers what you need to do from the CLI to change the default to this. Unfortunately, I can't report on that as I omitted to try it and no longer have the package in my office.

The *Access 64* programs may be copied to your work disks, also to hard disk if you have one and of course you may work it all from CLI if you wish. There are a number of extra commands provided by the *Access* programmers including DSDir n: which of course gives you a screen directory of Drive n. DSFormat & DSCopy speak for themselves and DSFilter converts a file using 64/128 character set to a file with the Amiga character set.

This whole set-up could be extremely useful to someone writing committee reports, user-group newsletters, short stories etc. and who has moved on to the Amiga. Existing 64/128 files could be transferred to Amiga format, then *Kind Words* or one of the other excellent Amiga word processors used to improve the printout with different fonts and formatting.

All in all I felt that *Access 64* worked quite well and there's obviously a need for this kind of transfer between Commodore computers.

It's understandably a little slower using 64/128 peripherals than dedicated Amiga equipment as there's obviously an extra "interpreting" stage for the commands to go through before execution, but a single drive Amiga user should be quite happy to use the old 1541/1571 as an external device for the reasonable cost involved.

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Review copy from Computermate (02)457-8118. ■

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AMIGA

Publisher Plus

by Eric Holroyd

Publisher 1000 was released for the Amiga a couple of years ago and at the time was considered quite a good program. As Amiga users became more demanding of their machines it was obvious that a few of the program's shortcomings needed to be tidied up. ***Eric Holroyd*** *examines the latest version.*

I'M HERE TO tell you that Northeast Software Group have done just that (and then some!) in releasing the updated version, *Publisher Plus*, onto the market. It's a middle-of-the-range program, quite flexible and offers WYSIWYG capabilities via a "full-page" screen preview of your work prior to sending it to the printer.

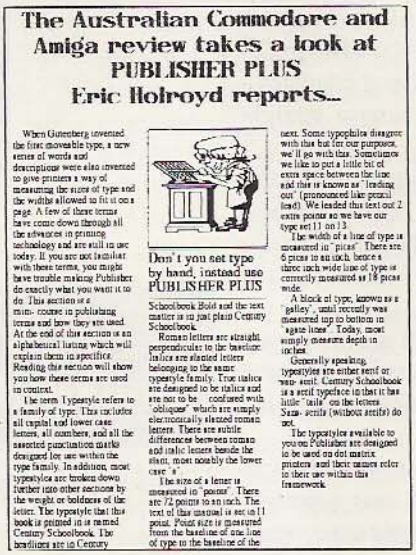
I've looked at other desktop publishing programs previously and have invariably found them lacking in a number of areas. *Publisher Plus* proved to be most satisfactory to use, it's quite user friendly and the results speak for themselves.

The accompanying illustration was done in my very first session just by following the tutorial in the manual. (This by the way fulfilled all my criteria: easy-to-read, in simple language, and spiral bound to lie flat.)

On the master disk you will find the text file and graphic for the printout (unprotected so you're urged to make a back-up first) and you're taken gently through each step of composing your page. I put in my own wording for the headline and the picture caption but used their text.

Composing your page

Page composition is quite simple. Selecting New Document lets you define the page size plus number and positioning of columns. Leave space for a banner headline then (C)reate a "guide" which is a "rubber band" box in which your text is to be typed. X & Y coordinates of the pointer are shown on the title bar and



The Australian Commodore and Amiga review takes a look at PUBLISHER PLUS

Eric Holroyd reports...

When Gutenberg invented the first moveable type, a new series of words and descriptions were also invented to give printers a way of measuring the sizes of type and the widths allowed to fit it on a page. A few of these terms have come down through all the advances in printing technology and are still in use today. If you are not familiar with these terms, you might have trouble making Publisher do exactly what you want it to do. This section is a mini- course in publishing terms and how they are used. At the end of this section is an alphabetical listing which will explain them in specifics. Reading this section will show you how these terms are used in context.

The term Typestyle refers to a family of type. This includes all capital and lower case letters, all numbers, and all the assorted punctuation marks designed for use within the type family. In addition, most typestyles are broken down further into other sections by the weight or boldness of the letter. The typestyle that this book is printed in is named Century Schoolbook. The headlines are in Century

Don't you set type by hand, instead use PUBLISHER PLUS

Schoolbook Bold and the text matter is in just plain Century Schoolbook.

Roman letters are straight, perpendicular to the baseline. Italics are slanted letters belonging to the same typestyle family. True italics are designed to be italics and are not to be confused with "obliques" which are simply electronically slanted roman letters. There are subtle differences between roman and italic letters beside the slant, most notably the lower case 'a'.

The size of a letter is measured in "points". There are 72 points to an inch. The text of this manual is set in 11 point. Point size is measured from the baseline of one line of type to the baseline of the next. Some typophiles disagree with this but for our purposes, we'll go with this. Sometimes we like to put a little bit of extra space between the line and this is known as "leading out" (pronounced like pencil lead). We leaded this text out 2 extra points so we have our type set 11 on 13.

The width of a line of type is measured in "picas". There are 6 picas to an inch, hence a three inch wide line of type is correctly measured as 18 picas wide.

A block of type, known as a "galley", until recently was measured top to bottom in "agate lines". Today, most simply measure depth in inches.

Generally speaking, typestyles are either serif or sans- serif. Century Schoolbook is a serif typeface in that it has little "tails" on the letters. Sans- serifs (without serifs) do not.

The typestyles available to you on Publisher are designed to be used on dot matrix printers and their names refer to their use within this framework.

you know exactly where you are on the page at any time. This makes *Publisher Plus* very easy to work with.

Text may be imported from many sources such as *Amiga Notepad*, *Textcraft*, *Scribble* and any word processor that saves a plain or ASCII text file or you may simply enter it direct in *Publisher Plus*.

A huge array of text formatting options is available including Left/centre/right/left and right alignment, plain/bold/italic/underlined, text linked from column to column or page to page, justification, insert/cut/copy/paste of a single character or an entire text block, manual kerning (micro adjustment of individual characters) and more.

Automatic microspacing of characters is user-definable to 1/120th of an inch (no metrics here! It's an American program) and any Amiga compatible font is usable. There's a good store of fonts on the disk and if you have the Zuma fonts you may use them, or even use *Calligrapher* to design your own. (You'd need to ask your supplier for details of both of those if you don't already have them.)

Graphics

Graphics files from most popular Amiga art programs, any IFF compatible picture, and digitized pictures may all be imported to *Publisher Plus*. Colour images are automatically translated to a grey scale and graphics may be cropped or resized to virtually any size.

In addition there's a supply of patterns on the disk for use in decorative borders, edgings, separation lines etc. Lines and solid fills can be used with great effect and there's even a pattern editor for you to design your own.

Obviously the aim of any desktop publishing program is to get your masterpiece onto paper and *Publisher Plus* is good in this department too. A wide range of dot matrix printers is supported (set yours in Preferences when you boot for the first time) plus it handles high resolution PostScript laser printers and typesetters.

If you have one of these you'll be happy to know that you can print colour images on it in halftone. There's also the facility to send a PostScript file to disk in ASCII format for modem transmission. Owners of daisywheel printers are unable to use *Publisher Plus* as these printers are usually text-only machines for use mainly in business work.

Fonts, or typestyles, are shown on the menu by point size, ie Times 12 and 24. When loading a font however, you may specify a different point size in the file box. This is where the program

shines as it will resize the font to whatever you've specified. Thus you have a virtually unlimited range of fonts/sizes and if you couple this feature with boldface, italics or underlining you get a great range of effects.

Screen "refresh" (simply means redrawing of the screen) is very fast on *Publisher Plus* as opposed to *Publisher 1000*. This is no mean accomplishment on the part of the programmers as it's a hires screen you're looking at.

The only slowing down I came across in the entire program was when I'd specified a different font size from standard. A message saying "scaling font, please wait" is displayed and you need to wait for up to half a minute on some jobs for the software to do all its resizing calculations. Again, it's quite an achievement by the programmers to give us the feature at all so I shouldn't complain about a little wait now and then.

A couple of other "niggles" which I must mention are the fact that *Publisher Plus* goes into font re-scaling mode when you exit Type mode (where you enter text). This seems to me quite unnecessary. Also, if you haven't set your printer in Preferences as I suggested above you'll find that you're trying to print to a PostScript printer (the program's default) and there's no error message to give you a clue as to why nothing's happening.

My other problem I solved by myself as the manual didn't mention it. If you've created a guide a little too small for the amount of text you're trying to type, you run out of room (pretty obvious) and the cursor disappears (not so obvious). I spent quite some time in finding that out all I had to do was to click onto the re-sizing gadget at the bottom right hand corner of the guide and use it to enlarge the box a little. It worked fine then, and of course the entire text can then be "reflowed" to even out any discrepancies in the other columns or guides.

If your requirements are for a DTP program to use for producing newsletters, advertising flyers, descriptive brochures, school/office notices etc which incorporate graphics into the text then this is very much worth having a look at. I like it a lot and can imagine that I'll be using it quite often.

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Superbase Part 8

Response to readers' enquiries

by Peter Gallen

THIS MONTH'S COLUMN will be spent answering queries that I've received recently that I feel would be of general interest. These are problems shared by several readers so I assume more of you either have encountered them or will do so in the future.

First a tip from Alaistair Hay. This refers to transferring data between databases on different disk drives. The program appeared in Article 5 in the July '88 issue (p22). For those of you who don't have it for reference I'll repeat it here.

Figure 1

```
10 rem transfer between disk drives
20 database"dat.one",8,0:file"file1"
25 n=10000
30 selectf
40 a$=[key]:b$=[name]:c=[date]
50 database"dat.two",9,0:file"file2"
55 clear:[key]=a$:[name]=b:[date]=c:store
60 database"dat.one",8,0:file"file1"
70 n=n+1:x$=str$(n):k$=right$(x$,4)
80 select k$:eof menu
90 goto40
```

As is the program works fine, however Alaistair points out that the same result can be had for less programming by changing line 60 to the following and eliminating lines 70 and 80.

```
60 database "dat.one",8,0: file
"file1":select a$:select n:eof menu
```

The trick is to include "select a$" before "select n".

Unfortunately, Alaistair reports that he also has had no luck trying to create "list" files on a second drive. There seems to be no shortcut to creating them on drive 8, transferring them to drive 9 and then erasing the original on the first drive.

I'd like to advise those who have purchased a cheap copy of Superbase V1 (currently available for around $40) to register and upgrade to version V2. Not only have a number of bugs been rectified from the earlier versions, but V2 comes with a very useful utility program to copy or recover whole or damaged databases or sequential files.

Also V2 is faster, uses disk space more efficiently and its data files are compatible between the C64 and the C128 (running in 40 columns). Remember though that Superbase is upwardly compatible only. ie. V1 files will work with V2 (and be converted in the process) but V2 files will not work with V1.

Several readers have written asking about "parameterizing the system" which is the subject of the last, short chapter of *Superbase: The Book*. The concept is to create either a one record database containing common data eg. a company name and address details and contacts and, when required, link to this file and extract the fields you need at the time to insert in invoices, form letters, etc.

Another way is to modify the 'start' program to prompt you for some information that will be used frequently during the session eg. today's date. Here you allocate the date to a variable and store it using 'dump'filename into a small sequential file. At the start of each module simply use 'set'filename to retrieve the variable to memory and insert it where required. (Figure 2.)

Dr Hunt seems to prefer the first approach, while I have a liking for the second due to simplicity and speed. Of course if you need to store details for many different companies, for example, Dr Hunt's method would be far preferable. A disadvantage in using 'set' and 'dump' that Dr Hunt points out is in the temptation not to document the variables in 'rem' statements.

It can be very mystifying to say the least to look at code that starts to use variables that do not seem to have been assigned values. It's embarrassing also when you forget what's what in a complex program you need to change in six months' time. I hope this offers a solution to Wayne Campbell and others who raised the query of auto-inserting dates within different programs.

R. Coleman of Western Australia raised some points I believe to be of general interest to Superbase users. On the subject of making copies of the Superbase program disk, I suggest that archival backups for personal use only, can successfully be made using one of the better copy programs around eg. *Fast Hack 'em or Disector V3*.

This does not infringe copyright as you have the right to use your disk when you want to, and not have to wait weeks or longer while the manufacturer replaces your corrupted disk. I use such a method and am glad as I've 'lost' two program disks in the last three years - all at critical times when any delay in obtaining a backup copy from the suppliers would have been totally unacceptable.

The next point is common to many enquiries as there seems to be a deal of confusion as to what "Index Mismatch" really means. Most users suffering this affliction have been using duplicate keys

Figure 2

```
5 rem start program
10 brkon
20 rem **** leave most of the program
as-is
30 rem **** until you get to this line
130 display
@12,5"_____"
135 ask @2,9 "enter today's date:
[ddmmmyy];d$:rem suggest format but
note this is not a date field format.
140 dump"sysfile"
160 display @0:rem reset display count
170 database"dat.one":file"file1":
[date]=d$
```

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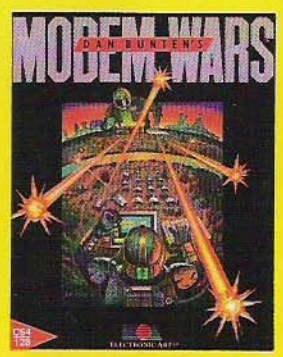

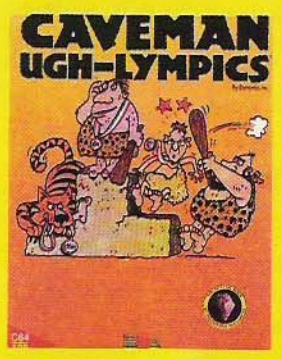

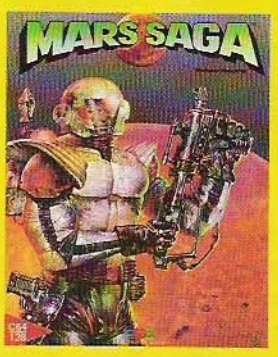

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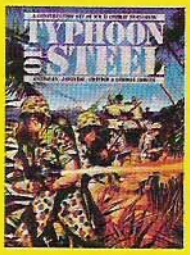

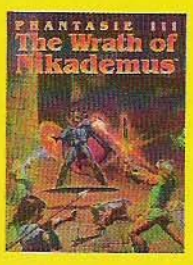

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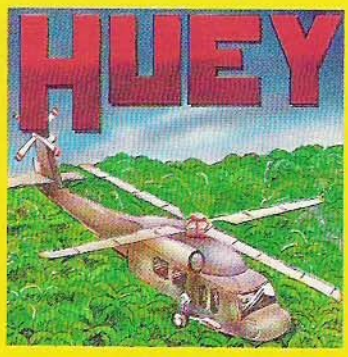

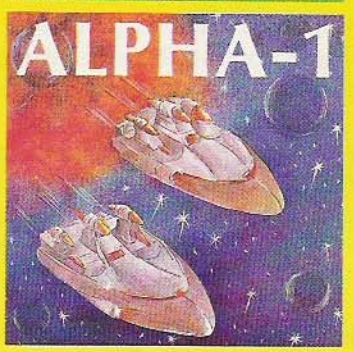

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Figure 3

```
10 rem format sort output
20 sort all on [dept] to "filesort"
30 select f:d=[dept]
40 display &1,0d;
50 if [dept]=d then display @15[name]:
select n: goto50 60 display &1,0(d+1);
70 if [dept] =d+1 then display @15
[name]:select n: goto70 80 wait:
menu:rem return to menu at completion
k
```

and associate this with the problem. Not so, as this error can strike at any time and is more influenced by the state of your disk drive than anything else ie. alignment of heads.

It occurs when data, often, but not always, associated with the key field becomes corrupted. The disk drive cannot find the pointers it needs and so an error is generated. It is correct that using duplicate keys will make your data file more prone to this problem, but believe me, it can strike at any time.

The only real safeguard is to keep regular backups and if trouble happens, have a repair program handy, such as the one published on page 29 in the September issue.

I've experienced this problem several times over the years and I only use duplicate keys for one application - processing monthly statements from an invoice file. Even very expensive computers suffer from this type of problem.

A third point concerns the control of output from a sort operation, where it is not desired to display the repetitive values of the sort field. eg.

Dept	Name	Salary
1	Brown	2000
1	Evans	2000
1	Smith	2500
2	Jones	2500
2	Taylor	3000
3	Green	3000

The program in Figure 3 will rearrange this output to display in the following fashion, which is more professional.

Dept	Name	Salary
1	Brown	2000
	Evans	2000
	Smith	2500
2	Jones	2500
	Taylor	3000
3	Green	3000

128 Corner c128

Geofile

by Harry Waterworth

ANOTHER ONE OF THE useful products in the Geos family is *Geofile 128*, Berkeley's database program for both the home user and the small business owner. Like all the other Geos 128 applications, it takes advantage of both the Mouse and the Ram Expander, and also has the same degree of "user friendliness" to which we have become accustomed.

Before commencing to set up your database on the computer, it's a good idea to do a rough layout on paper to get an idea of what you want the finished product to look like. You should also take the time to figure out what you will be doing with the information being stored. This will then help you to decide the best layout to take advantage of some of the many options available: ie Merge files, Label printing, Index cards etc.

Starting up *Geofile* is simply a matter of drawing the boxes for the desired fields. To do this, click on the options menu, and then from the sub-menu, click on "form design" to enter into the design mode. The screen displays a large grid, and with mouse in hand, you click where you would like the first "field" to start.

Now drag the pointer across the screen until you get the box to the shape and size you need, then another click and the field is set. This procedure is repeated for all of the required fields in your database.

The master form on which you draw the field boxes is 11" X 8 1/2", and this is the only limitation on the number of fields allowed. As you continue to create new fields, the screen scrolls down until the bottom of the master form is reached. In reality, it is doubtful if many of your databases would require the whole form, but it's nice to know the space is there if needed.

There are three different field types in *Geofile*:- text, which stores numbers and/or characters; numeric, for numbers only and a comment field (see more on this later). At any time after you have designed your fields, you can move them around or change their size until you are happy with the result. This is achieved by way of two small boxes in diagonal corners of each field.

To alter the field size, click on the box in the bottom right corner and using the mouse, drag the box back or across until the right size is obtained. Similarly, to move the field to another location without altering the size, click on the opposite box (top left corner) and reposition the field to the new spot.

After all the fields have been set, the next step is to decide on a "Sort Field". In the example database shown, the sort field is 'Lastname'. Choosing a sort field must be done before you enter the next stage of operations, namely:-

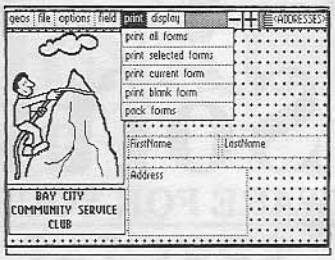
Entering data

Entering data is simply a matter of typing in the relevant information. If the field has more than one line in it, *Geofile* uses wordwrap at the end of each line (in the same manner as *Geowrite*). To start entering, click on the first field with the mouse and type in the info.

When you finish typing in the first field, getting to the next field can be done in one of three ways:-

1. Hit the return key and this will move

you to the next field down.
2. Use the "Commodore" key and one of the four cursor keys to move in the desired direction.
3. Click on the next required field with the mouse.



Should your database be larger than what can be seen on screen, you again have a number of options for moving around. Personally, I find using the mouse the easiest method for moving around in large databases, but there are two other methods.

Firstly, you can use the 'Preview' option from the 'File' menu and then click on the desired location on the reduced picture of your database which shows up on the right hand side of the picture. The other alternative is using the 'Page Indicator' which is in the centre of the command menu at the top of the screen. Just click on the small box within the indicator and then move it to where you want to go; then another click and you're there.

As well as entering text and numbers in fields, you also have the capacity to place graphics from *Geopaint* in your database. This is done using a photo-scrap from a *Geopaint* file and then placing the scrap in the 'Comment Field' mentioned earlier. A comment field cannot be used for entering text in data entry mode, nor can it be given a field name.

As stated in the manual, it is 'decoration' for the database and could be used for a logo or other similar function.

When you finish typing all the details in the first form, you select the next form by using the 'Commodore' and N keys or by clicking on 'Form' in the command menu and then 'New form' in the sub-menu. The first method is much faster and comes naturally after a few forms have been completed. After you have finished recording all of your data, you are then ready to search for, rearrange and/or print the info in any fashion you choose.

Searching

Searching for a particular record in *Geofile* is a breeze. Again, no keyboard commands are required, it's just a matter of pointing the mouse in the right direction, namely to "Form" in the main menu. When the drop down sub-menu appears, click on 'Create search form'.

You are then presented with a blank copy of the form in which you have stored all your records. To look for 'Johnson' simply type the name into the "Lastname" field, then click on the OK icon in the top command menu. Then click on either of the two 'Search Icon Faces' and *Geofile* will recall all the Johnsons that are stored in your database.

You can also use the asterisk character (*) as a wild card so that if you type 'Jo*' in the lastname field, *Geofile* would recall all the Johnsons, Jones, Jolleys etc. Symbols such as < for less than; > for greater than and = for (obviously) equal to can also be used.

To example the above conditions, if you type " > 2999" in the Postcode field, then *Geofile* would present you with all records in which the postcode was higher than 2999. Likewise, if you type "= 2999" in the postcode filed, then you would get only those records that exactly matched the 2999 criteria.

It is this capability to quickly select one particular record or a group of matched records from a large base of up to 3,000 (about the capacity for one floppy disk) that make databases such a valuable tool for the small business person.

Change the layout

One of the excellent features of *Geofile* is the capacity to change the layout of your database to suit different tasks that you may wish to perform. This is done by clicking on 'File' in the command menu, then 'Change Layout' in the drop-down sub menu. You can then commence to rearrange the files or delete those files not needed for the specific job at hand.

For instance, in the example database shown (No 1), there are 12 fields in the master form. However, to get a layout for address labels only, all you do is delete the unwanted fields, rearrange the remaining fields, and presto, you finish up with example 3. There are 12 "Sub-Layout" forms for you to permanently store your different layouts. Changing or deleting fields in the sub-layout has no effect on the fields originally stored in the master form.

The printout

Once you have everything stored and any required sub-layouts completed, you are then in a position to print the info from your database. Again, Berkeleys have put a lot of thought into this section of the program, and it shows.

Printouts can be effected in literally hundreds of different combinations. You can print one form per page, or *Geofile* will automatically calculate for you the number of files which will fit on each page, and then print them for you.

You can print the files showing all the boxes and fieldnames; none of the boxes or names; no fieldnames but some or all of the boxes etc etc etc (See examples 1 and 2). This same flexibility extends to the sub-layouts. Only one font is used in *Geofile*, but you have the choice of printing in bold, plain or italic, or a mixture of all three.

Geofile will also print out your data in the form of index cards or mailing labels, so as you can see, finding the right form of printout for your records should not present any problems.

All in all, *Geofile* is a powerful database, with the added capability of being able to use *Geomerge* to send out those form letters to all of the clients, friends or relatives stored in your files. ■

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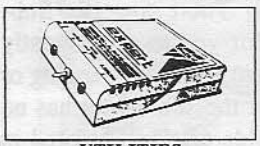

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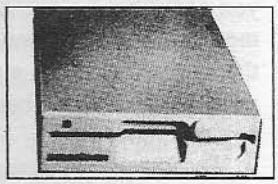

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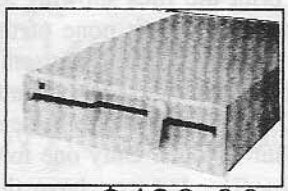

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✦ **Stowaway** - A text adventure by Base Seven Software. You are a stowaway on a ship, can you escape?

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✦ **Cruncher BASIC** - If your pushed for memory this program will in seven parcels compact your program as much as possible by compounding statements onto one line.

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Machine Code Tutorial Part 8

Inside the Kernal

by Andrew Baines

c64

The Commodore 64 has many useful routines that come built in, and are easily called by user programs. Andrew Baines looks at the Kernal's user routines, and their parameters.

LAST MONTH, we looked at some of BASIC's routines. They helped us to use numbers the way BASIC does, with all those routines doing the work for us. We will look at more of these routines in the near future. For an in-depth look at the BASIC ROM, Compute!'s, '*Vic 20 and Commodore 64 Tool Kit: BASIC*,' has all you need to know. I don't think it is available in Australia, I obtained mine a few years ago, and haven't seen one since.

This month, the Kernal. Most people believe that BASIC takes up 8k of memory, and the Kernal 8k. This is simply not so. BASIC takes up about 8.5k ($A000 - $BFFF, $E000 - $E4AC), while the Kernal snatches up the rest ($E4AD - $FFFF).

The Kernal is mostly concerned with I/O, input and output from the 64. It also handles the interrupts, warm and cold starts, screen editing, and various clock functions, along with many others.

In future issues, I will present the full Kernal memory map, the one with all the useful routines on board. For now, we will look at the Kernal's most widely used routines, the routines Commodore designed for use by users.

Kernal routines

$FF81 65409 CINT: Initialize screen editor and VIC-II chip. This routine sets up the video conditions you see when you turn your 64 on. It uses all registers, and four bytes of the stack. If you write your own routines to set up your own operating system on reset, this routine should be called to make sure the video is properly located, and the screen editor functioning.

$FF84 65412 IOINIT: Initialize Input/Output Devices - Not the disk drive or external devices, but the chips that allow the 64 to control these devices - the CIA chips, and the I/O port in the 6510 processor chip. This routine uses all registers.

$FF8A 65418 RESTOR: Setup Default system vectors at $314 - $333 (788 - 819 decimal). These vectors are the interrupt vectors, and the pointers to the vectored Kernal routines (the ones you can change). This routine also uses all registers, and two bytes of the stack.

$FF8D 65421 VECTOR: Manage RAM Vectors. This routine performs two functions, depending on the state of the Carry flag. If the carry is set, the system RAM vectors are copied to a user area, pointed to by the X and Y registers (X low, Y high). If the Carry is set, the routine will do the reverse, and copy the bytes pointed to by the X and Y registers to the system vectors. Using this routine is recommended for safe changing of system vectors to point to your own routines. All registers are used, two stack bytes, the Carry flag must be set/cleared before calling, and the X and Y registers LoaDed with the location of the user vectors (for reading and writing vectors).

$FF90 65424 SETMSG: Control Kernal Messages. The Kernal sends out all the I/O messages to the screen ('Press Play on Tape', 'File not found error'). If these appear during your program, due to user error, or whatever, it can be very annoying. This routine allows you to turn off error messages ('file not found') and/or control messages ('play on tape'). The Accumulator must be LoaDed with the codes needed. Bit 6 controls control messages - if it is set, control messages are printed as usual - if clear, control messages are turned off. Bit seven controls error messages, and the same applies as for the sixth bit. The easy way to turn all Kernal messages off, is to LoaD the Accumulator with zero, and call this routine. Only the accumulator is used by the routine, so the X and Y registers are the same before and after this routine is called.

$FF96 65430 TKSA: Send a secondary address to a device commanded to TALK. Before calling this routine, you must call the TALK routine. This routine needs a secondary address in the Accumulator before you call it. This number must be between 0 and 31. The routine affects the Accumulator, eight bytes of the stack, and its errors must be read using the READST routine.

$FF99 65433 MEMTOP: Read/Set the top of Random Access Memory. This routine sets the top of BASIC's RAM area. If the carry is clear before calling the routine, the routine will put the top of memory into the X and Y registers. If the carry is set, the X and Y registers must also hold the location you would like as the top of memory. The X and Y registers are affected, and two bytes of the stack are used.

$FF9C 65436 MEMBOT: Sets the bottom of RAM for BASIC. Usually this is $0800 or 2048 decimal. If the Carry bit is set when this routine is called, the address of the current bottom of RAM will be returned in the X and Y registers (X high, Y Low). If the Carry is clear, the X and Y registers must hold the desired bottom of memory before calling the routine.

$FF9F 65439 SCNKEY: Scan Keyboard for Pressed keys. This routine is called by the 64's interrupt routine to place the ASCII value of a key in the keyboard buffer, if one is pressed. SCNKEY affects all registers, uses five bytes of the stack, IOINIT must have been called before it (even if it was hours ago), and GETIN must be called after it to retrieve the characters from the key-

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board buffer.

$FFA2 65442 SETTMO: Set IEEE bus card timeout flag. The 64 will, after this routine has been called, look for a device on the IEEE bus. This does not apply to most users, as the standard 64 does not have an IEEE bus. The 64 waits for 64 milliseconds to see if a device is there, and if not, an error condition is generated. The Accumulator's seventh bit holds the 'switch' for timeouts. If it is set, timeouts are disabled, clear and they enabled.

$FFA5 65445 ACPTR: Get a byte of data from the serial bus. This routine returns a byte in the Accumulator from the serial bus (the disk, printer, etc). Before this routine is called, however, you must call the TALK routine to command the device to send data, and, if necessary, the TKSA routine to send a secondary address. The routine affects both the accumulator and X registers, uses 13 bytes of the stack, and returns errors through the READST routine.

$FFA8 65448 CIOUT: Output a byte to the serial bus. This routine sends the contents of the Accumulator over the serial bus. Before the routine is called, LISTEN must be called, to tell a device on the bus to listen, and SECOND may also be called to send a secondary address. This routine uses five bytes of the stack, affects no registers, and returns errors through the READST routine.

$FFAE 65454 UNLSN: Command device on serial bus to stop LISTENing (UNLiSteN). UNLSN tells all devices on the serial bus to stop listening. It uses eight bytes of the stack, affects the accumulator, and returns errors through the READST routine.

$FFB1 65457 LISTEN: Command a device on the serial bus to LISTEN, or receive data. Before calling this routine, the Accumulator must hold the device number (0-31). Error returns are made through the READST routine, the Accumulator is affected, and no bytes of the stack are used.

$FFB4 65460 TALK: Command a device on the serial bus to TALK, or send data. Once again, the Accumulator must hold the device number before calling this routine. The routine uses eight bytes of the stack, returns errors using READST, and affects the Accumulator.

$FFB7 65463 READST: Read status word. This routine returns errors made while using other KERNAL I/O routines. There are two stack requirements, the error condition is returned in the Accumulator as follows:

BIT	/ VALUE of ST	TAPE Read / Load	SERIAL Read / Write
0	1		Time out write
1	2		Time out read
2	4	Short Block	
3	8	Long Block	
4	16	Read error/ Mismatch	
5	32	Checksum error	
6	64	End of file	End of file
7	-128	End of tape	Device not present

$FFBA 65466 SETLFS: Set up logical file number, device address, secondary address. This routine sets the first part of an OPEN statement in BASIC up: eg. OPEN 15,8,15,"i0" (it is also used for LOAD and SAVE). This routine would set up the numbers in front of the inverted commas. This routine must be called before calling the OPEN routine. The Accumulator with the logical file number, the X register with the device number, and the Y register with the command or secondary address before calling this routine. There are no error returns, and SETLFS requires two stack bytes.

$FFBD 65469 SETNAM: Set up file name for OPEN, LOAD or SAVE. The Accumulator must hold the length of the string (or filename), and the X and Y registers must hold the filename's address in memory in high byte (X) - low byte (Y) format. If you don't want a filename, LoaD the Accumulator with zero. This routine must be called before OPEN, SAVE or LOAD.

$FFC0 65472 OPEN: Open a logical file that can be used for Input or Output. This routine has two setup routines that must be called before it: SETLFS and SETNAM. There are no values that must be passed, as these are taken care of in the setup routines. The OPEN routine uses READST to return errors, and also the Accumulator. The carry will be set whenever there is a KERNAL error condition (Numbers 1, 2, 4, 5, 6, 240 apply). The meaning of these errors is explained below.

$FFC3 65475 CLOSE: Close a logical file. Similar to the BASIC command, this routine should be called after all operations on a logical file have been completed. the Accumulator needs to be loaded with the file number before CLOSE is called; CLOSE uses all registers and at least two bytes of the stack. Error returns are made through READST, and numbers 0 and 240 apply.

$FFC6 65478 CHKIN: Open a channel for input. After you have OPENed a file, you must open a channel for input before you can use CHRIN or GETIN, and this routine performs that job. The OPEN routine and its associated routines must be called before this one, and the X register must hold the number of the file before the routine is called. Error returns are numbers 3, 5, and 6 and CHKIN affects the Accumulator and X register.

$FFC9 65481 CHKOUT: Open a channel for output. CHKOUT does the opposite of CHKIN: it opens an output channel. LoaD the X register with the file number before calling this routine, and check error numbers 0, 3, 5, 7 and READST. CHKOUT uses the Accumulator and X register and two bytes of the stack.

Next month, we'll take a look at something a little different. If you haven't quite taken all of this in, don't worry, there's more of this to come in part ten. ■

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The Amiga BASIC Tutorial

Part 1 Amiga BASIC from the Beginning

by Marco Ostini

WAY BACK WHEN computer languages such as FORTRAN, COBOL and ALGOL were in their prime, BASIC was born. BASIC is the acronym for "Beginners All-purpose Symbolic Instruction Code" and was originally developed at Dartmouth College in America.

It was intended to be a computer language that would be easy to learn and to teach. From there it has come a long way and it is still being taught in schools all over the world, simply because it is such an easy language to understand.

I first learned how to program in BASIC on a BBC. Also I have programmed BASIC on the VZ 200, VZ300, VIC 20 and the Commodore 64. I'm still programming in BASIC on the Amiga. Amiga BASIC is without a doubt one of the best implementations of BASIC on the market.

On most older generation personal computers BASIC was built in, but on the Amiga it has to be loaded from Workbench as a program itself. This makes the Amiga much more flexible.

The first form of BASIC on the Amiga was called ABasiC and it was written by MetaComCo. ABasiC used line numbers and was not as user-friendly as Amiga BASIC.

After a short while Amiga BASIC came out, fresh from Microsoft's workshop. One of the first versions was Amiga BASIC V1.1 which came with many of the Amiga 1000s, but there were a few bugs with this so Amiga BASIC V1.2 was released and this now comes with all new Amigas.

Amiga BASIC on boot up has two screens. The screen with the word 'BASIC' in the drag bar is called the 'Output Window'. All output from Amiga BASIC programs will appear here unless specified otherwise.

The other window will have the word 'LIST' appear in the drag bar, this is the List Window. A listing of the current Amiga BASIC program will appear here.

Enlarge the LIST window by grabbing it on the drag bar and sliding it fully to the left hand side of the screen, then use the sizing gadget in the bottom right corner of the window to stretch the window across the screen. Now you have a full screen to program in Amiga BASIC.

The first command we will use in Amiga BASIC is the PRINT command. PRINT does exactly what you would expect it to do, it prints. Type in the following line without line numbers (Amiga BASIC works without line numbers) in the LIST Window and press the RETURN key:

```
print "Amiga"
```

You have just made your first Amiga BASIC program.

Did you notice that when you pressed RETURN the command 'print' became 'PRINT'? This is because Amiga BASIC recognized the word 'print' to be a command and automatically highlighted the word.

Amiga BASIC will do this to all the commands it recognizes. If you type in an Amiga BASIC command in higher case text as it is when it's highlighted it will still operate normally.

There are a number of ways to make an Amiga BASIC program run. You can either choose 'Start' from the 'Run' menu, or you can press the Amiga key and R on the keyboard simultaneously, or you can type 'RUN' in the Output Window.

Run your program now. The word 'Amiga' will appear in the output window. PRINT command will print onto the Output Window anything contained within the inverted commas.

Select the list window. You can do this by choosing 'Show List' from the 'Windows' menu, or by pressing the Amiga key and L on the keyboard simultaneously, or by typing 'LIST' in the Output Window.

Commas and semicolons effect the output of the PRINT command, for example, change your listing to this:

```
print "Commodore ""Amiga"
print "Commodore ","Amiga"
```

RUN your program. As you have just seen the effect of the comma is to make the PRINT command tabulate by five spaces, but only when it is following the inverted comma, not when it is within the inverted commas.

Now try this:

```
print "Commodore ";
print "Amiga"
```

The effect of the semicolon is to join the two PRINT outputs together.

Now let's work with the INPUT command. The purpose of the INPUT command is to gain some information from the user into the computer. INPUT can also act as a PRINT command at the same time.

Clear your last program out of the computer. You can do this by choosing 'New' from the 'Project' menu. A requester will appear asking you if you would like to save the program, in this case select 'NO'.

Now type in this example:

```
input "What is your name";a$
input "and what is your age",b
print "G'day "a$
print "your ";b;" years old"
```

An INPUT command must have a variable attached to it. The purpose of the variable is to contain information which can then be used later. A variable

can be any letter of the alphabet or a word.

When using words as variables it is best to use small words for ease of programming. It is also important not to use a word that is also a command, otherwise this will confuse the computer and the program will not operate properly.

There are two types of variable, they are the numeric variable and the string variable.

A numeric variable will be a variable that will hold a number. It can be declared as any letter or word. On the second line of the program the numeric variable is 'b'.

A string variable is a variable that will hold a word. It also can be declared as any letter or word but it must contain a dollar sign after the letter or word. The variable on the first line of the program is the string variable 'a$'.

Amiga BASIC is quite a forgiving computer language. One feature it has is to convert variables with the same name, but in different form of text into one format. Type this in but don't run it:

```
A$ = "Amiga"
print a$
```

On pressing RETURN on the second line the string variable 'A$' is turned into 'a$' to make the variable in one form throughout the program. This will only occur with variables which are the same letter or word.

The INPUT command does not have to have words, for example, try this:

```
print "What is your name "
input a$
print "and what is your age"
input b
print "G'day ";a$
print "your ";b;" years old"
```

This will have the same result as the first INPUT program except that the question marks appear below the questions and there are of two of them. However, the question marks can be suppressed by placing a comma in between the command INPUT and the variable.

If you have a text message after your INPUT command then you must have at least a semicolon in between the message and the variable. To suppress the question mark then place a comma instead of the semicolon.

The command CLS will clear the Output Window. This is useful to clear away the remains of the last program. Use this command at the very beginning of a program.

GOSUB and RETURN are two commands which enable the program to jump to other parts of the program and then return and continue in the normal fashion. Clear your last program out of the computer's memory and type this in:

```
cls
start:
print "This is the start"
gosub middle
ending:
print "This is the end"
end
middle:
print "this is the middle"
return
```

In this program even though it is written out of order, when it is run the printings on the Output Window still come out in correct order. This is because of GOSUB and RETURN. The command RETURN should not be confused with the Return key, they have nothing in common except the name.

For GOSUB and RETURN to work, parts of the program have to be labeled. A label can be any word or number (not too long and not an Amiga BASIC command) ending with a colon. The labels in the above program are 'start:', 'ending:' and 'middle:'.

It was necessary to use the word 'ending' and not 'end' as a label, because 'end' is a command. The command END will simply make the program end.

Amiga BASIC has many specialized commands to harness the great power of the machine's graphics sound and speech.

Next month we will look into Amiga BASIC's finer commands to obtain great results. We will also see how to use the menus to chop and change an Amiga BASIC program. ■

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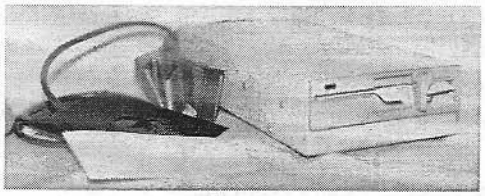

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AMIGA

An Introduction To The C Programming Language

Part II

by Adrian Sheedy

THIS MONTH'S column will take the budding C programmer through some more commands and concepts of the C programming language.

We must introduce you to the '#define' function. It can be used to adjust your programs to be as high or as low level as you like. Here is a program which shows how '#define' works.

Example 1:

```
#define PI              3.141593
#define ONE              1
#define TWO              2
#define FIVE             5
#define begin            {
#define end              }
#define times            *
#define equals           =
#define square(x)        ((x)*(x))
#define is less than     <
#define plus one         ++

main()
begin

float   RADIUS;
float   CIRCUMFERENCE;
float   AREA;

for ( RADIUS equals ONE; RADIUS is less than FIVE; RADIUS plus one)
begin

CIRCUMFERENCE equals TWO times PI times RADIUS ;
AREA equals PI times square(RADIUS);

printf("A circle of radius %1.0f ", RADIUS);
printf("has a circumference ");
printf("of %f,\n", CIRCUMFERENCE );
printf("and an area of %f.\n", AREA);
end
end
```

The output will be:

A circle of radius 1 has a circumference of 6.283186, and an area of 3.141593.

A circle of radius 2 has a circumference of 12.566372, and an area of 12.566372.

A circle of radius 3 has a circumference of 18.849557, and an area of 28.274338.

A circle of radius 4 has a circumference of 25.132744, and an area of 50.265488.

Explanations are definitely due. '#define' is known as a preprocessor command that simply looks through the source code to find all occurrences of the first string it is given, and substitutes these finds with the second string. The notable exception to this is when the first string is found in inverted commas within a printf function, and within comments. No substitution is done at these times.

There is one black sheep in the examples above which is the '#define square(x) ((x)*(x))'. This is a function definition, as opposed to the other constant definitions. They all work in the same fashion, substituting the value in brackets as x. '#define' comes in useful when you want to make your programs clearer and easier to read.

This is what the program looks like after the preprocessor has done the substituting:

Example 2:

```
main()
{
float   RADIUS;
float   CIRCUMFERENCE:
float   AREA;

for ( RADIUS = 1; RADIUS < 5; RADIUS ++)
{

CIRCUMFERENCE = 2 * 3.141593 * RADIUS;
AREA = 3.141593 * ((RADIUS)*(RADIUS));

printf("A circle of radius %1.0f ", RADIUS);
printf("has a circumference ");
printf("of %f,\n", CIRCUMFERENCE);
printf("and an area of %f.\n", AREA);

}

}
```

The 'float' type is the definition for a floating-point variable. Since we would like the area and circumference to be fairly accurate, we have defined them as 'float'. Even though RADIUS is always an integer, we defined it as 'float' because we shouldn't mix data types in mathematical operations. See the next example for more variable types.

I realise that the 'for (...)' statement looks fairly cryptic when you don't understand it. Well, it stays cryptic even when you do. I'll try to explain. 'for(...)' is another loop like the 'while' loop we used last month. The format of a 'for' loop is:

for (Initial expression ; Condition ; Change expression) statement(s)

There are three expressions separated by semicolons. The first expression is an initialization, done when the 'for' loop begins. The second expression is the test condition which is tested before each potential execution of the statement(s) in the loop. The third expression is evaluated at the end of each execution of the loop. So in our example above:

```
for ( RADIUS = 1; RADIUS < 5; RADIUS ++)
{
...
}
```

The computer enters the for statement and sees that RADIUS = 1. It tests that 1 is less than 5, then executes the series of statements in the braces. Then it increments RADIUS by 1 by executing the third expression in the 'for' command.

Another test is then done on RADIUS < 5, and since 2 < 5 is true, the statements are executed again. When RADIUS = 5, the test RADIUS < 5 is false, so the loop is broken and execution continues after the statements in the loop. Is this clear?

There are seven fundamental data types recognized by C. These are int, long, short, unsigned, float, double, and char. The first four of these are for representing integers of different sizes.

They can be used in combination, like 'unsigned int', which declares an integer which has no sign (i.e. no plus or minus value is given to it). 'float' and 'double' create floating-point types (which allow decimal places and fractions to be recognized, as opposed to integers which can only be whole numbers). The last one 'char' is for letters of the alphabet and other characters including numbers.

Mostly you will only use the 'int' data type when declaring integers and not worry about 'short' and 'long'. To declare a variable as 'short' tells the computer that the value of that variable can never be greater than an 'int'.

Declaring 'long' means that the value will be greater than an 'int' type. e.g.

```
int    errupt;
short  run;
long   jog;
```

'errupt', 'run' and 'jog' are the variables being declared.

Note that any variable can be given a value at the time it is declared:

```
int    x = 5;
```

Alternatively we could have:

```
int    x;
x = 5;
```

This applies to all data types.

Floating-point variables can be declared as double precision, i.e. 'double'. This means that there will be greater accuracy in calculations than with 'float'.

```
e.g.        float  boat;
double  your money;
```

Here we can see the actual sizes of these data types in bytes by using the 'sizeof()' function.

Example 3:

```
main()
{
printf("Type int is %d bytes,\n", sizeof
(int));
printf("type long is %d bytes,\n", sizeof
(long));
printf("type short is %d bytes,\n", sizeof
(short));
printf("type float is %d bytes,\n", sizeof
(float));
printf("type double is %d bytes,\n", size-
of(double)); printf("type unsigned is %d
bytes,\n", sizeof(unsigned)); printf("type
unsigned int is %d bytes,\n", sizeof(un-
signed int)); printf("type char is %d
byte.\n", sizeof(char));
}
```

The output will be:

```
Type int is 2 bytes,
type long is 4 bytes,
type short is 2 bytes,
type float is 4 bytes,
type double is 8 bytes,
type unsigned is 2 bytes,
type unsigned int is 2 bytes,
type char is 1 byte.
```

This shows us how much memory is put aside for each of these types of variables when they are declared. The 'sizeof()' function simply returns the number of bytes allocated to the variable. It can be used to find the amount of memory put aside for previously declared variables also.

The 'char' declaration is for a single character. If you want to define a variable which carries a string of characters then you do this:

```
char   test[10];
```

where 10 is the maximum number of characters to be allocated to the variable. (Note: If we did a 'sizeof(test)' with this example, a '10' would be returned.)

The declaration:

```
char   test[1];
```

is equivalent to:

```
char   test;
```

You can use '#define' this way for a string constant:

```
define test "0123456789"
```

Any 'char' variable can be set as a character which you type in from the keyboard. Or it can be the ASCII value of the character you want. Or it can be one of the more awkward 'escape sequence' characters.

```
e.g.          char   test;
test ='T';
or     test = '\084';  ASCII value for 'T'
or     test = '\n';    escape sequence char-
acter for newline
```

An ASCII value must be preceded by a backslash, and it must be a three digit ASCII value. ASCII is mostly used for characters that cannot be typed such as a beep. The escape sequences are for the characters which are difficult to type. Here are the possibilities:

```
\n    newline
\b    backspace
\r    carriage return
\f    form feed
\t    tab
\\    backslash (\)
\'    single quote (')
\"    double quote (")
```

These same characters can be used in a printf statement with the same effects.

Here is a program that will convert the character you type in to its ASCII value and print it on the screen.

Example 4:

```
main()
{
char   test;

printf("Type in a character and press re-
turn...");
```

```
scanf("%c", &test);
printf(" The ASCII value for %c is
%d.\n", test, test);      }
```

'scanf()' is the polar opposite to 'printf()'. The same as BASIC's 'input command, with a subtle difference. 'scanf()' waits for a character to be inputted and return to be pressed. Then it assigns the character to the character variable 'test'.

There is an ampersand (&) before 'test' because the argument in a 'scanf' must be a pointer. This concept will be discussed fully at a later date. It is enough to say that the ampersand ensures that the character typed will be assigned to the variable 'test'.

The actual conversion to ASCII is in the printf statement. When a '%c' is used, the character version of the variable 'test' is printed out. A '%d' on the other hand is for numeric notation, and thus the numeric value of the character is printed. These are the possible identifiers for use in printf and scanf:

```
%d    decimal integer
%c    a single character
%s    a string of characters
%f    floating point, decimal notation
%e    floating point number in scientific notation %g  use the shortest of %f
and %e
%u    unsigned decimal integer
%o    unsigned octal integer
%x    unsigned hexadecimal integer
```

For most people the first three or four of these will be adequate, and there is little need to use the rest. We will show you one use for the last three by ending this month's installation with a program that will convert decimal integers to hexadecimal and octal integers. It can be easily adjusted for conversions in the other direction also.

```
Example 5:
main()
{
int    y = 0;

printf("Type 999 to end...");
while (y != 999)
{
printf("Type in the number to be converted: ");
scanf ("%d", &y);
printf("\n%u is %o in octal\n", y, y);
printf("and %x in hexadecimal notation.\n\n", y);
}
}
```

An example output is:

Type 999 to end...Type in the number to be converted: 2748 2748 is 5274 in octal, and abc in hexadecimal notation.

Type in the number to be converted: 143
143 is 217 in octal,
and 8f in hexadecimal notation.

Type in the number to be converted: 999
999 is 1747 in octal,
and 3e7 in hexadecimal notati0.2

Examples 1 and 2 must be compiled using the maths library option when compiling with Aztec C. i.e. the commands to compile and link would be:

```
cc Example.c
ln Example.o -lm32 -lc32
```

40E The reason is that both examples multiply floating point numbers, and the linker needs the maths library to understand this. ■

What's happening with educational software?

AMIGA

Tim Brooking takes a look at a few of the issues facing purchasers of educational software in Australia, as well as shortfalls in the current range.

IT'S ALL VERY well to have a computer for home and educational use but it's not much use without the software. After the first thousand or so dollars has been spent on the Amiga, monitor and second drive it comes as a bit of a shock when every time you buy software you have to find another $50 to $100 for software that could be termed educational.

No problems if you are a "DINK" (double income no kids) but as a "SILK" (single income lots of kids) it does tend to stretch the budget a bit. In fact if you get too carried away nurturing the latent genius of the prodigies you won't have a budget.

The average price for educational software available in Australia appears to range from around the $50 mark up to $100 or more. In America it's $30 to $60 U.S. for the same software. Even allowing for the exchange rate, this is still a considerable jump. This seems rather a lot to me and even though I can see why piracy is wrong I can understand why i goes on considering the cost of software especially to the average family.

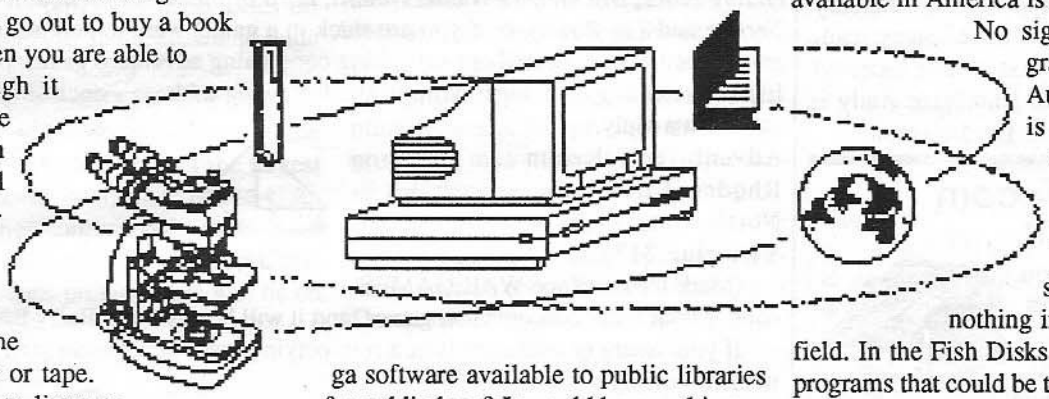
A good educational book may take years to write and the cost of publishing printing and distributing would be far more than copying a 3.5" disk and printing the often meagre instructions. Yet the software is always far more expensive. Yes, I know that software is often written by teams of programmers, but many good educational books are written by teams of authors. (*Of course, the writers of educational books are able to make their money over a far higher volume o*

sales than computer software - Ed.)

The cost of educational software is not such a problem for the schools but for Mr or Mrs Average it certainly is. Probably the only way an average family could afford a selection of good software is by getting hold of pirated copies. If you can buy a good maths or grammar or whatever educational book for twenty odd dollars then the equivalent software should not cost any more.

Perhaps we're paying for the privilege of using high technology? Continuing on in the same vein I think that one should consider the following.

When you go out to buy a book for the children you are able to browse through it and compare book with book until you are reasonably sure you are buying what you want. The same with a record or tape. You are able to listen to various versions and then buy the one that appeals to you the most.



Not so when you go out to buy educational software. It is rare indeed to be able to play with a copy in the shop or indeed to have the time to assess the software. It is even rarer to find an assistant who knows anything about the particular software you are interested in.

This is all assuming that they have a copy in the shop and don't have to obtain it from the distributor.

The point of it all is that with software you have to put your money up front and hope it's what you want and when you are paying $50 or so for the cheapest software it's a lot of money to spend on an item which was not what you wanted (of course magazine reviews are a great help).

It is easy therefore to understand why people will use the pirated software if they can obtain it. If it is not what you want you have only wasted a few dollars instead of $50 plus.

Perhaps a way around these problems without infringing copyright laws can be found. For example a club or public library. Some public libraries in Victoria loan out records and video tapes. Shouldn't it be possible to loan out educational software as well?

Obviously the multitude of computer types would make it difficult for the libraries to know which one to support, so why not start off with the latest and the best - the Amiga! How about Commodore making a selection of suitable Amiga software available to public libraries for public loan? It would be a real incentive for families to purchase an Amiga as they would know there was a source of good, useful software for next to no cost.

Wandering through the shops where commercial software is available shows that as yet the retailers, or distributors for that matter, don't appear to take educational software seriously - it's usually jumbled up with everything else and very rarely do they have much of what is theoretically available (according to the magazines) on their shelves.

Their stock fluctuates from month to month and no one seems to have any idea of the capabilities of what is there. This is in sharp contrast to my experiences with what's from specialist retailers of educational software for other computers. I can only hope that these retailers see the potential of the Amiga soon and start stocking Amiga educational software.

Subjects

The educational software for the Amiga available in Australia at the moment seems to be divided into the following subject categories: maths; foreign languages; English; pre school; history, geography and some general tutorials. These categories are further sub divided, for example language is broken down into spelling, grammar, vocab, punctuation and so on.

In America there are more programs available but again in the same general categories. One notable addition that is available in America is *Biblical Studies*. No sign of these programs appearing in Australia yet which is rather interesting!

Checking through the public domain shows almost nothing in the educational field. In the Fish Disks 1 - 128 the only programs that could be termed educational for children are a couple of star identification programs - the same appears to be true of the Amicus disks. I haven't checked through any other public domain software as yet.

Apart from the general categories that I have mentioned above there are a couple of programs I would like to see developed for children/students to use on the Amiga. First a basic, simple, word processing program. No fancy stuff. Just the ability to type out assignments or homework, edit them and correct the spelling, and of course a couple of decent fonts.

(We believe there are a few good word processing programs to choose from - have a look in our Amiga Annual 1989. Ed)

Secondly, a simple, easy to use data base/spreadsheet and lastly logo. I've yet to find a logo program for the Amiga.

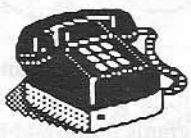
Adventurers' Realm

by Michael Spiteri

WELCOME ONCE AGAIN to the dark and dank caverns of the Realm. Because it's almost Christmas, the Realm has all the hottest news on new releases in the adventure market.

The Realm's compendium of hints and tips will now appear in the January issue, mainly because of the many reader's hints and tips that I have received over the last month. Kamikaze Andy is back this month with The Dungeon.

Realm's Telecom Department



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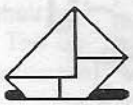
We are still looking for Bulletin Boards in other states to become part of this network.

Post Office Department

Welcome to the Realm the wonderfully charming Kerrie Brady. Kerrie (who only very recently became my fiancee) will hopefully be assisting me in getting replies and hint sheets out quicker to you.

So, if you want one of the free Realm hint sheets (*ZZZZZZZZ*, *Adventureland*, *Pirate Adventure*, *The Bards Tale*, *Faery Tale*, *Borrowed Time*, *Zork 1,2,3*, *Never-ending Story*, *Hitchhikers Guide*, *Hobbit*, *Lord of the Rings*, *Dracula*, *Castle of Terror*, and *The Pawn*), or if you are stuck in a game, want to help someone in a game, want to complain about something concerning adventure games or just feel like commenting on things, write to the following address - enclosing a s.a.e if you want a reply.



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(Mark the envelope WAR GAMES dept. if your letter concerns war games, and it will be passed to Barry Bolitho.)

If your query or comment is of a role-playing type, then please send your mail to the following address:

Adventurer's Realm Role Playing Department
44 Hawkesbury Drive
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News, Gossip, Rumours department

WELL, WE HAVE MORE news concerning the Infocom issue in Australia. Questor no longer distribute Infocom software, this has now been handed over to Ozisoft. More news on prices and availability when we get some.

Questor may not be importing Infocom adventure games, but they now seem to be supporting adventurers even better than ever with a whole host of fantastic new releases. *Corruption*, *Fish*, and *Tracker* are three new great adventure games from the Magnetic Scrolls series.

Corruption is a truly exciting and original adventure and certainly shouldn't be missed. In *Fish*, you take the role of a humble goldfish in his quest to save the doomed planet earth. Another Questor import is *The Legend of Blacksilver*, a role-playing game of magic from Epyx.

Another very promising release from Electra is *Time*, a fully animated adventure with digital graphics. The game starts hundreds of years in the future in Madame Tussauds wax museum, now located on an orbiting satellite.

You play one of the workers in the museum who is detailed to produce a new display that will take him back in time to meet such people as Leonardo Da Vinci, Merlin, Julius Caesar etc. As he encounters his former models, the realization slowly dawns on him that the real object of his mission is not simply to produce their likenesses.

Questor has also catered for war gamers, with December being the expected release of Tom Clancy's *Red Storm Rising* (Microprose). This rather frightening war game focuses on the tactical operations of an American nuclear attack submarine in World War III.

All the games mentioned above are available now from Questor. To find a dealer close to you, ring Questor on (02) 662 7944. ■

The Dungeon

by Kamikaze Andy

Hello! Welcome to The Dungeon. Recent months have produced a whole avalanche of Role Playing Games, many for the C64 and Amiga. Hopefully The Dungeon will be able to bring you news and reviews of these exciting products.

Dungeon News

Software maestros Electronic Arts are releasing several C64 games including *Future Magic*, and a conversion of the IBM rpg *Starflight*.

Melbourne House have well and truly entered the role-playing market with *War in the Middle Earth*, based in Tolkien's *Lord of the Rings* world. You control Frodo, Gandalf and Aragorn in the quest to save Middle Earth. The Amiga version will be released first, followed by the C64 version.

Finally, Infocom have also entered the role playing market in a serious way with *Journey* (by Marc Blank), *Battleteck: The Crescent Hawk's Inception*, and last but not least - *Zork Zero* (***MS: Good grief!***) Unfortunately this is only available for the Amiga.

Review:
Ultima IV The Quest of the Avatar
(for the Amiga)

After a year's delay, the Amiga version of Origin Systems classic *Ultima IV* has been released. *Quest of the Avatar* allows the player to roam the land of Britannia, solving riddles and finding clues towards your ultimate goal - to become an Avatar!

Much has been said of the game play in 8-bit reviews, and *Ultima IV* is widely held to be the best role-playing adventure of all time (at least on 8-bit machines). The Amiga version, however, is disappointingly lacking in graphics and animation. One would expect the programmers to utilize the full visual capabilities of the Amiga, but sadly they have not.

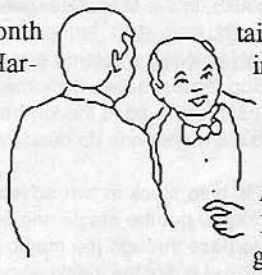
Except for the use of a wider colour spectrum, the graphics on the Amiga version are very similar to the C64 version. The musical scores found in the game are much better, and the sound effects are above average. The dungeons have been touched up and disk-access is also very fast.

Overall, *Ultima IV* on the Amiga did not deliver the impact that it originally did on the 8-bit computers, but its superior game play, ease of use, interaction and extremely challenging puzzles should satisfy novices and seasoned adventurers.

The classy packaging includes a reference card, a book of spells, a book of history, a metal ankh and a nicely coloured cloth map. Rating 8 out of 10.

Next month in the Dungeon: A review of Rainbird/Questor's *Legend of the Sword*.

Realm's Adventure Chitchat



Just one letter this month in chitchat from Alex Harvey, Forestville NSW.

"I have noticed lately that people have been complaining about two very good games: *Bard's Tale* and *The Pawn*.

On the first topic, *Bard's Tale*, a while back "Wolfe the Enchanter" said it was very boring, and in August, Chris Coombes backed him up.Well, I think it is a great game and think it deserves some support.

On the comments "the graphics are repetitive" I say this - The graphics in the town and the dungeons are there to help you find your way around, not for you to sit and admire all day, and the pictures of the monsters and characters are not repetitive at all.

I don't think people who dislike certain games should write letters abusing them when many other people who have different tastes might very much like these games.

Now on the topic of *The Pawn*. I don't think it is overrated. I think it has a great parser and a great plot, and of course, superb graphics!!"

MS's reply: Going by the immense popularity of the Bard's Tale hint sheets (now more popular than the Zork hint sheets) and the fact that there are as many different Bard's Tales as there are Zorks, Alex is obviously not alone in supporting this game.

I think everyone has a right to can a game, however the final decision should be left up to the individual. Please use opinions in this magazine as guidelines, and not as a basis for buying/not buying a product.

Realm's debate centre

The current debate concerns the effects adult software has on minors. I'd like opinions from every age regarding this serious topic.

Mark Glendenning writes...

"I am 14, and won't be 15 until next May. Several months ago I tottered into the only computer store within a one hour drive. Wandering up to the counter I asked about adventures. The lady told me they had none, but had the next best thing.

Out came a copy of *Defender of the Crown*. After a discussion, I took it home. The lady made no effort to stop me buying it. Someone else my age bought *Leather Goddesses* with the same ease. Underage and encouraged to buy it."

MS: Defender of the Crown is a fine game if not for the highly controversial raunchy ending. To solve Leather Goddesses of Phobos the player has to complete certain sexual acts, however no explicit language is used.

I should also note that the age protection scheme on both these games is next to none. I'm not sure how to take the following letter from a character called Microchip.

"In Septish 88, you wrote about Above 18 Games. I think they should have games rated M, like movies for over fifteens. I'm sixteen and I love to play *Defender of the Crown*. The prevent technique does work. An over 18 lad I know has seen and played *Leisure Suit Larry*."

MS: I don't think magazines like Australian Commodore Review will print reviews of adult games, if that's the effect they have on teenagers. What do adults think about this controversial topic?

Problems, problems and more problems

(or . . . The Troubled Adventurers Department)

Mark Glendenning is stuck in *Robots of Dawn*. How do I get to Gladia? Also, how do I pass the tingle field?

Alex Harvey is stuck in the *Bard's Tale II*. Like Andrew Hansen, he is also stuck in the fourth *Death Snare*. Also, in the starter dungeon on Level 3, how do you find out the password?

Craig Barnett of Kilaben Bay in NSW is having problems in two Infocom classic adventures. In *Leather Goddesses*, he wants some tips for coping with the catacombs, as well as trying to pass the ion beam. Then in *Moonmist*, he finds the ghost but always ends up dead. What does he do?

Greg Eames of Ballarat in Victoria is also stuck in two adventure games. Firstly, in *Temple Curse*, how do you get the magic ring out of the flint, and what things do you need to pass through the magic porthole? Then in *Island of Spies*, how do you get out of the jungle when you have landed safely on the ground?

And poor ol' David McKinney is getting rather upset with *Dracula Pt1*. "This is really stupid. No matter what I do, no matter whose advice I follow, I can't get this stupid game to tell me that my name is Jonathon Harker.

"Last time you told me to try examine the desk/counter, but this didn't work. Then I tried someone else's advice, to read the register . . . no good. What do I do?"

Then in the *Helm*, David wants to know how to open the spell book and kill the evil Lich.

Clive Roberts of Hoppers Crossing in Victoria wants to know what to do to the native girl in *The Island of Spies*. Under 18 suggestions only - thank you.

Mr. Watts of Watsonia in Vic wants to know how to row the boat in *Temple Curse*, as stated in the September Realm, while Suzanne Parkes is having a few problems in the now classic *Guild of Thieves*. Firstly, what does she do with the pick? And secondly how do you collect the minerals?

Could someone out there please send the Realm a hint sheet for *Hampstead*, it seems I accidentally gave out the last and only copy.

Allan Purdie of Cooma North in NSW is stuck in *Bugsy*. Apparently the police keep interfering when he tries to deal with some paper boys. Can anybody help Allan before he throws this game out of his window?

I tend to get the feeling that Tasmania has its own collection of adventure games. Mrs. B Draeger of Launceston is trying hard to find out a password to use in a game called *Police Academy*. If anyone has played or even heard of this game, can they assist Mrs. B?

Mr. P. Kemp is one of the many millions in this galaxy trying to get past the screen door in *Hitchhikers Guide to the Galaxy*, but the solution I have is too complex to send to him without giving away the rest of the game. Can anybody please supply the Realm with a satisfactory solution to this problem?? ("Show the door tea, and no tea" is not a satisfactory solution).

Glenn Williams of Keilor in Victoria is stuck in a game called *Payoff*. Can anyone help him find a certain key for a certain safe deposit box?

Reckless Russell of Glengowrie in South Australia is stuck in two games (that are both unknown to The Realm). In *Andy Capp* he wants to know how to get a job, find his Giro, get his rent book from the bookie, find Chalkie and visit the bank.

While in *The Detective Game* he wants to know what the combo to the safe is, how to get into the Prof's room, how to open the locket, and find out the name of the book in the library. Nothing worse than being stuck in two games nobody has ever heard of!

John Grimmond of Toowoomba in Queensland is stuck in many an adventure. Firstly in *Hacker*, John cannot work out the system of collecting all of the documents at once. Then to *Red Hawk*. Is there anyway to save Leslie from death by the hand of the Professor? Finally, in *4th Protocol*, how does John break the code in Part 2 at the Sentinel House?

Help, Help and More Help

(or the Smart Adventurers Dept.)

Because it is the festive season, everybody in adventureland has been generous and very willing to cure the demented souls that litter the countryside. Thanks to everyone who contributed to this super-dooper donation of hints and tips . . .

Labyrinth

For: B. Ross, Anne Barnes, Mark Glendenning and Roy.

From: Laser

Q: How do you get out of the wise man's garden?

A: Ask wise man - he will recite a riddle. Give dollar, take change and take rule book. Now solve the riddle to find the exit.

Q: How do you get into the castle of the Goblin King?

A: Call ludo, then call rocks, then throw rocks at the guards. You can call for more rocks if they run out. Use arm that you should have taken from Fiery.

Q: How do you get out of the secret corridor?

A: Find the missing black key in the piano keyboard walls then insert plank (ex log). Now unlock the door.

Q: What is the rock video Fiery refers to in the forest?

A: Call Ludo, call rocks and call camcorder. You have now made a rock video.

The Pawn

For: Chris Coombes

From: Mannequin

Q: Problems with Paper Wall Room and the Cream Door.

A: Tear the room with boots or try ripping. Try knocking down the door.

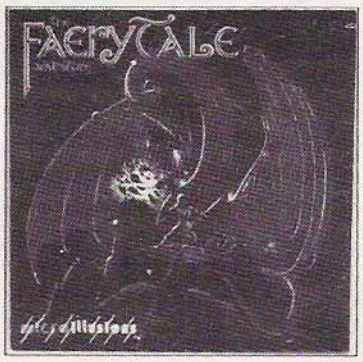
Lord of the Rings Pt2

For: David Newmann

From: Mannequin

Q: How do you cross river at Lothlorien?

A: The Tactirun elf may help.



Faery Tale

For: Gino Ferraro

From: Warthog

HELP: To get to the Spirit Plane, find the Necromancer's castle at the bottom of the plain of grief among the blue mountains, walk along the left of the lava to enter the castle and go through the blue force field.

Grand Larceny

For: Rick Pezzimenti

From: R. Coniglio

HELP: To get to the very top of the building, go to the laundry, go window, then at the rooftop exit climb stairs after 11.00.

Labyrinth

For: Rick Pezzimenti

From: Wrathchild and Ian Malcolm

Q: How do I get out of the hedge maze?

A: Use the shears to manicure hedge.

Aztec Tomb Ptl

For: Aaron

From: Ray Manns

HELP: To get past the bull you past catch the fish and examine it. Then fill the jar (found in the hall) then water the plant. Do this twice.

Uninvited

For: Risole

From: James Forman and V. Cvek, and from Dave/Graham/Eddie from Papua New Guinea.

HELP: To get rid of the ghost in the bedroom, use the spider cider on the railing where the spider always comes. Leave the area then come back and when the spider runs across - it should die. Get it and put it in the room.

HELP: To get past the dogs guarding the chapel, say "instantum illuminaris abraxas" To pass through the chapel say "specan heaford abraxas" to the statue head.

Maniac Mansion

For: Andrew Kent

From: James Forman

HELP: To get the key to the dungeon you must get the cassette tape and record. Record the sound off the record in the piano room. Take the tape down to the cassette player under the old radio and play it. The chandelier will break and there is a key in it.

Holy Grail

For: David Newmann

From: David McKinney

HELP: Put the grail on the pedestal in the throne room.

Bards Tale II

For: Joanne Green

From: Alex Harvey

HELP: There is a portal on the 2nd level in the starter dungeon at 21N and 21E of the entry stair.

Zorker of the month

The award this month goes to all the guys at Infocom for producing yet another Zork in the form of *Zork Zero*. What's worse is that it is not a thrilling all text adventure game but a full graphic role-playing game. Runner up goes to the guys at Questor, who can never decide whether they stock *Zork* or not.

Guide to contributors

EVERY MONTH WE receive dozens of submissions from would be writers. For these we are most grateful. If you have considered writing for the *Australian Amiga and Commodore Review*, here's a few guidelines. The majority of contributions are accepted, however as we have a larger number to choose from these days, a few more stringent guidelines need to be met.

Style: Easy to read, entertaining and informative. We aim to be an enjoyable easy to read publication - with a smattering of technical articles for those so inclined. We are most interested in tutorials, "how to" type articles, and general hints and tips. Programs are also sought after for our disk magazines, Suite 64 and Amiga Live!

Format: Don't include any formatting such as printer controls, centred headings, print styles etc. Put a space after commas or full stops. Do not indent paragraphs. Numbers under 10 should be typed. We prefer contributions on disk - Commodore 64/128, Amiga, MS-DOS and even Macintosh. Don't double space. Just a straight ASCII text file is all we require. We also accept contributions via modem once you become a regular contributor. Baud rates of 300, 1200, 1200/75 and 2400 are supported.

What to include: A brief letter, if it's your first effort. Don't forget your phone number - this is the most important thing! And put your name at the top of the actual article, not just on the letter.

What you get: Fame and a little fortune. Writing is a lot of fun. You'll get payment of $50 per 1000 words - paid about one or two months after publication and a free subscription to the magazine after your third article. We take receipt of the article as permission to publish - you may not always be contacted before we use your article.

Where to send contributions: Post articles directly to *The Australian Commodore and Amiga Review*, 23 Bonnefin Rd, Hunters Hill. Or call (02) 817-0011 to arrange modem transfers. Don't send us your original - we cannot guarantee return, and it may become damaged in the post. Send 5 1/4 inch disks in an Australia Post cardboard Post Pak especially designed for carrying disks. Do *not* use padded post bags - these have a tendency to make the postman want to bend them in half. Amiga disks can just be sent normal mail.

That's it! For a more detailed version of the above, call our office and ask for the complete writers guide. ■

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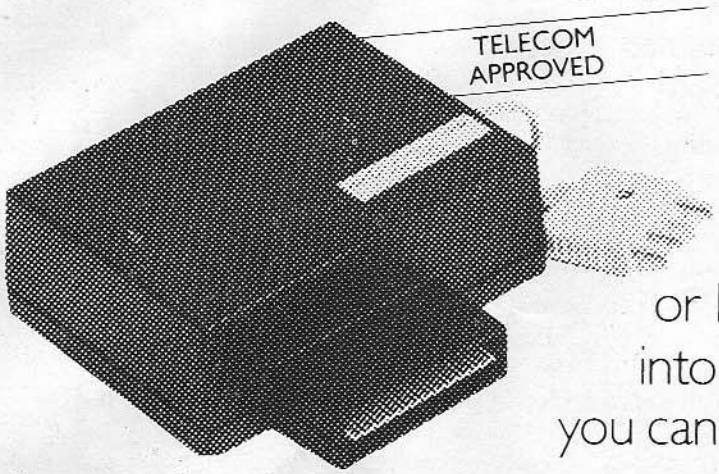

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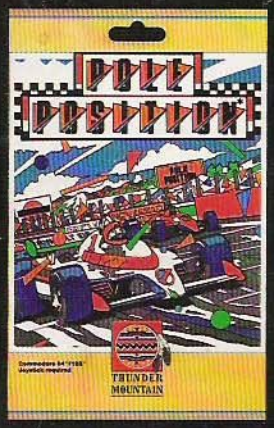

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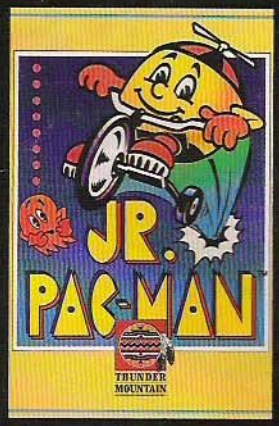

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